

BARUNG
LANDCARE
NEWS



October - November 2002

WORKING FOR OUR FUTURE



Bridge the Gap
TREEPLANT
&
BARUNG AGM



FROM THE PRESIDENT

Saturday 28th September saw a wonderful tree plant along the Aplin Road corridor attended by many enthusiastic people, including about 40 volunteers from the ANZ Staff Foundation.

It was extremely well organised, thanks to Marc Russell, and the enormous amount of preparation done by Jeanette Nobes and Alan Wynn. Planting was all done by 11.30am and everyone wandered back to tents on the Obi Obi banks to enjoy music and conversation, followed by an excellent lunch provided by Karen Shaw, Trish Brunton and Angela Todd.

Of course all of this was just the bait to get them there. You should have seen people leave in droves once we announced the Annual General Meeting was about to start!

Our State member, Caroline Male, deserves a special mention. She was there at 10am for the tree planting and was still there at 3pm, after very ably chairing the election of the new Management Committee for 2002/2003.

It is always pleasant to reward people and the Phil Jacobs Farm Forestry Award was given to Estelle and Douglas Haynes, who have created an arboretum of hundreds of south-east Queensland timber trees on their land.

Ted, Eunice and Allan Prickett of Peachester, and Valerie and John Poulson of North Maleny, were joint recipients of the inaugural Barung Land Restoration Award, and also received a complimentary property visit by Spencer Shaw to further encourage their land restoration efforts.

Bruce Wilson was the surprised recipient of the Volunteer of the Year award for his fantastic efforts, both in the Barung Nursery and on the Obi Boardwalk.

We launched Barung's now official Volunteer Manual which is written proof of how much we value our volunteers, and thanked Anni Philp, Alison Bennett, Karen Shaw and Julie Lehmann for the many hours that went into its compilation and production.

Thanks to Neil and Gillian MacLeod for hosting the meeting on their property.

My first official duty was to save Dr Tony Dowling, our guest speaker and the new Chief Executive Officer of the Burnett/Mary Regional Body. Being brand new in such a difficult job and being faced with some very enthusiastic Maleny/Barung-ites was, shall we say, character building for the job in store.

Welcome to the three new members of the Management Committee: Tracy Adams, Penny Riddoch and Heather Spring. Farewell and many thanks to Laurie Capill and Chris Allan.

I look forward to working with the new Committee and thank continuing members Karen Shaw, Patricia Brunton, Lin Fairlie, Richard Francis, Clayton Stokoe and Jo Todd.

The finances are looking good and it seems we have to get bigger to survive. I look forward to the challenges the coming year will bring.



WELCOME TO THE 2002/2003 BARUNG MANAGEMENT COMMITTEE

Tracy Adams

I've been a resident of Maleny for six years and a regular visitor to the area for the 17 years prior to that. I have a BSc (Hons) in Environmental Studies, majoring in Ecology, Land & Water Processes, and Land Use Planning, with 23 years experience in ecology, landcare, nature conservation and rural nature conservation, and organic agriculture. I've worked for State and Federal Governments, universities, the Queensland Herbarium and Queensland Museum. I have a desire to contribute to Landcare in my local area and am particularly interested in strategic direction for Landcare, sustainable agriculture, sustainable forestry and nature conservation.



Patricia Brunton - Treasurer

I have a background in small business accounting and a passion for "community" and moved to the Range with my family in 1995. I have to say my experience as a Barung Committee member has been both enlightening and empowering: the talents, dedication and strengths of Committee members, staff, volunteers and in fact everyone involved with Barung, continually astound me and have made my first year as Treasurer encouraging and rewarding. I enjoy watching Barung go from strength to strength, and though finding 'spare time' is always a challenge, I am happy to continue my involvement with Landcare at this level.



Elaine Green - President

I have been on the Barung Management Committee for three years, the last two as Secretary. I was going to step down when Lin offered me her crown, so I am prepared to stand as President to steer the ship for at least another year. These are exciting times for Barung. We have a Wood Expo that is on the verge of becoming a huge success, and I am keen to continue to be part of this. Our nursery is already very successful, and with some more space and energy, it could be the hinterland's "Fairhill"! Our environmental education program is second to none. The strangling of NHT funding is a challenge that can make us prosper. I am continually impressed by the professionalism of all the Barung staff and marvel at the talent and enthusiasm of our wonderful volunteers, including my fellow Management Committee members. Without our vollies, we simply wouldn't have been here for 13 years.



Lin Fairlie - Secretary

After two and a half years as Barung President, I feel that the time is right to stand aside from that position and hand the Presidency over to someone with the skills now required to take Barung into the next phase of its development. My interest in Landcare remains strong and as my knowledge continues to grow, I feel that I still have a role to play. I am happy to remain on the Management Committee and to serve as secretary for the next 12 months.



Richard Francis

I have a civil engineering, hydrology and operations research background, with 25 years experience as senior manager in water resource operations and environmental management. I've been a member of various commonwealth and state working groups for natural resource management of River Murray Catchments eg. defining environmental river flows, salinity control, planning control of flood plain development, water resource allocation, reservoir and hydro-electric power station operations. I am Barung's representative on the Mary Basin Water Resource Plan committee and wish to continue my involvement with the Management Committee for another term.

Penny Riddoch

I moved to Australia with my husband just over a year ago, and spent the first 8 months on the Atherton Tableland, Far North Queensland. We were active members of TREAT (Trees for the Evelyn and Ather-

ton Tableland). We came to Maleny in 2002 and view this as our final move. Having joined Barung, I am a regular visitor, purchasing trees and receiving advice on regeneration. Originally a teacher, my interests diversified into marketing and management. I have a Diploma in Management from Henley Management College, UK, and have worked in various marketing roles in Australia and overseas. Although I am a newcomer, the importance of Barung, and the role it plays within the community is very evident. I would therefore like to take an active part in whatever way my skills may allow.



Karen Shaw - Vice President

Barung Landcare is an amazing organisation with wonderful ideals for the future, great practical solutions to sustainable land management and extremely talented people (both volunteers and staff). Because of this I became a member, a volunteer and now a Management Committee member. My background is in education. As an early childhood teacher in Maleny for about 10 years (I also have three young environmentalists at home) I have enjoyed watching these children grow. My strong interest in environmental education has led to involvement in Barung's Education Sub-committee, S.E.E.D.S., the Maleny State School's TREES project and the Bushfood Café at the Expo. Privately, my husband and I run a small business, Brush Turkey Enterprises: we collect endemic rainforest seeds, grow tubestock and provide consultation and education services. I would love to continue on the Barung Management Committee and be part of the brave new world confronting Landcare today. Through dedication and commitment, Barung will continue to go from strength to strength!



Heather Spring

I have lived in Maleny for the last 20 years and watched with interest and concern the development of this region. I am a strong advocate of sustainable usage and conservation of natural resources. I have qualification in geology and resource management. I currently coordinate the Maleny Learning Centre, which is part of the Queensland based Learning Network Queensland. I am committed to lifelong learning and making learning opportunities available to everyone. I firmly believe that education is the key to changing agriculture practices, promoting community conservation and good landcare practices.



Clayton Stokoe

I have spent a lot of my life wandering around this country, always fascinated by the plants, and learning about adaptation, succession, indigenous history etc. This led me, by chance, into native seed collection for mining regeneration in W.A. I have now been self-employed in this field for 15 years. Moving to Queensland and Maleny 10 years ago, that interest expanded into other areas of conservation. Feeling the isolation of self-employment, I became involved in Barung seven years ago. My involvement to date has been as a volunteer, employee and now Management Committee member. At present I convene the Revegetation and Corridors of Green Sub-committee and would like to continue as a Management Committee member. I am proud and honoured to be involved in Barung as it fills my need to be actively involved in and part of a community I love.

Jo Todd

I have a strong commitment to caring for the environment and working for a sustainable future, and joined Barung when I first moved to the area about 5 years ago. My background is in banking and credit management. I am currently working for Maleny & District Community Credit Union as a Member Services Officer, and also enjoy participating in community volunteer week. I've enjoyed being part of the Committee for the past year and am happy to extend my commitment for a further term.

THE STATE OF THE LAND

Environment Australia puts water quality targets online

Under the National Action Plan (NAP) and Natural Heritage Trust 2 (NHT2), funding assistance for regions will be based on regional natural resource management (investment) plans specifying targets for the maintenance and improvement of the natural resources within that catchment, particularly in relation to salinity, water quality and biodiversity. 'Water Quality Targets Online', on the Environment Australia web site (see www.ea.gov.au/water/quality/targets), has been designed to assist regional groups to identify the environmental values of water and to set appropriate water quality targets for their catchment or region.

(from Flotsam and Jetsam, August 2002)

Australian standard for carbon accounting released

A new national carbon accounting standard has been released by Standards Australia, boosting the ability of forest managers and sequestration investors to quantify and compare the carbon removal capacities of areas of forest across the nation.

The standard has been developed to support carbon trading under Kyoto or non-Kyoto carbon trading markets that may emerge.

Standards Australia Environment, Materials and Consumer Standards Director, John Henry, said the standard provided a new approach to determining how much carbon a given patch of forest could be expected to remove from the atmosphere by taking into account factors such as tree species and tree density while using probability to take into account factors that could influence growth rates. Sampling and estimation techniques are used under the standard to gauge sequestration levels.

The new standard, titled AS 4978.1(Int) Carbon accounting for greenhouse sinks Part 1: Afforestation and reforestation, can be downloaded from www.standards.com.au.

(from EnviroInfo 3 September 2002)

Issues paper on Greenhouse and Agriculture

The Australian Greenhouse Office has released an issues paper summarising the key greenhouse issues relevant to agriculture as first stage in development of a strategic framework commissioned by the Greenhouse and Agriculture Taskforce. The paper, 'Developing a Strategic Framework for Greenhouse in Agriculture' can be downloaded at www.greenhouse.gov.au/land/agriculture/framework/index.html.

Economic Instruments for Environmental Management

Coastal CRC researchers Jackie Robinson and Sean Ryan review the economic instruments to support environmental management currently available in Queensland. The paper provides some guidance for their application and describes a policy framework for managing environmental degradation, and can be accessed on the CRCs web site at www.coastal.crc.org.au/planning_compndium/paper_robinson/economic_instruments.htm.

Developing natural resource partnerships

Doctoral student, Peter Oliver, discusses the principles of developing effective partnerships in natural resource management in a recent paper. Peter outlines the need to distribute power between multilateral partners, the importance of finding common ground to plan and negotiate, and why social capital is critical in communities, with case studies of integrated catchment management groups in Queensland. The paper was presented at an international conference on environmental education and research for sustainable development held recently in Burma. Anyone interested should contact Peter by email at peter.oliver@nrm.qld.gov.au.

'Plantations, River Flows and River Salinity' presentation

Rob Vertessy's invited address to the 'Prospects for Australian Plantations 2002' conference in Canberra in August summarises recent Catchment Hydrology CRC research on the topic, and can be requested from tanya.jacobson@csiro.au.

Plant Names Website

For plant enthusiasts and researchers, this website offers a concise database of 9,500 plant names and name changes for Australia. The site is a collaborative project of the Australian Biological Resources Study, Australian National Botanic Gardens and the Centre for Plant Biodiversity Research. To view the site, go to www.anbg.gov.au/win/

FarmBis Supports Farm Safety

Unfortunately rural industry has the highest incidence of death and serious injury of any industry, with 27% of the deaths caused by tractor roll-overs and run-overs. Like all business, primary production enterprises have an obligation under the Workplace Health and Safety Act to ensure that their workplace complies with safety requirements. The Queensland FarmBis program

assists primary producers to access subsidised training to ensure a safe workplace environment is established and maintained. In the last fourteen months, FarmBis has approved subsidised training in Rural Farm Safety for over 440 people. Vegetable growers in the south east region and pineapple strawberry, ginger and macadamia growers in the Wide Bay/Sunshine Coast region have benefited from the program, among others.

For information on eligible learning activities call the FarmBis Regional Network on 1800 337 709 or for application forms visit www.farmbis.gov.au.

New research reports - Sept 02

The Cost Benefits of Small Log Processing - Laminated Three-ply Flooring - A Case Study in WA.

Full report at www.rirdc.gov.au/reports/AFT/02-120.pdf

Innovative Products from Australian Native Foods.

Full report www.rirdc.gov.au/reports/NPP/02-109.pdf

Native Foods Website

A new website supporting the development of the Australian Native Food Industry with the backing of the Rural Industries Research and Development Corporation (RIRDC) - <http://www.nativecrops.com.au/industry>

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COORDINATOR'S REPORT

Mim Coulstock

A warm welcome to our new Management Committee members, Tracy Adams, Heather Spring and Penny Riddoch. I hope the next 12 months is rewarding as you delve deeper into the natural resource issues and celebrations that are a part of Barung.

Thanks you to retiring members Chris Allan and Laurie Capill, both of whom are retaining close links through their continuing positions with Caloundra City Council and the Farm Forestry Sub-committee/Private Forestry Southern Queensland respectively.

Congratulations to our new President, Elaine Green, and many thanks to our retiring President, Lin Fairlie. Both Elaine and Lin contribute a huge amount to Barung and bring valuable skills to the Management Committee. They just decided to swap jobs!

May 2002 / 2003 resolve some of our funding dilemmas and enable us to get on with the job of looking after the natural resources of our unique area.

Barung's dedication to achieving the best outcomes with limited time and resources was rewarded in early August when we were presented with a 2002 Southeast Queensland Natural Resource Management, Regional Award for Excellence.

It was with some feelings of humility that I also received a Regional Award for Excellence in the category of Support Worker. I would like to say at this point, that I accept this Award on behalf of all the staff of Barung.

I am no more excellent than the team of which I am a part, and this is a reflection of all of you - your passion, your dedication and your immense collective knowledge. I am proud to be part of such a team and thank you



EDUCATION REPORT

Mim Coulstock

Many thanks to the ANZ Staff Foundation who have funded my position for the past two years. I hope that you have all enjoyed being involved in our Bridge the Gap treeplants and receiving the Barung Newsletter.

Although this funding has now finished, I hope we can continue our fruitful relationship into the future.

Weedbuster Week is on us again from 13-20 October. The Barung staff will be willing to help answer any queries about best removal methods for weeds or to identify any weed samples, so bring them on in. Try to include leaves, stems and if possible flowers and/or seeds to ensure accurate identification.

We will also be holding another Privet Control Field Morning at Maureen O'Brien's on Friday 18th October. Small-leaved privet is now in full flower, so is easy to spot.

All participants will receive a free elkhorn - sustainably harvested from fallen or dead privets of course!

Privet is also a great flower for bringing on allergies and asthma. Maureen has designed a Detrimental Health Survey for Privet, so if you or any of yours suffer in privet season, drop into the office and fill out a survey form, or pick one up at the Field Morning.

Alan Wynn will be running a Sidewinder Training Course at Barung after the Field Morning. This one hour course qualifies landholders to make use of the Barung Sidewinder for stem injection of privet and other woody weeds.

Marc Russell has lined up members of the Brisbane Frog Society to assist us with a great Frog Identification Day in November, as part of the Corridors of Green Project.

The afternoon will be dedicated to the theory of Frog ID in the Peachester Hall, then after a BBQ dinner, small groups will go out into the wilds with a Frog Society member to ID frogs by sound and torchlight. Keep your fingers crossed for a moist night.

Bookings are essential for this workshop. There will be a small charge to cover dinner and enable us to help fund fuel for the Brisbane contingent. See ad on page 8 of this Newsletter for Frog ID details.

Copies of the
01/02 Barung Annual Report
are now available from the
Barung Office.

What bird is that? Bird ID with Jeanette

Have you recently asked the question "What bird is that?"

If you have, then a new series of walks may be helpful in answering your question. Barung is starting fortnightly Bird Watching Walks for beginners, for those who would like to learn the secrets of this wonderful and relaxing past-time.



Jeanette Nobes (writer of the wonderful Nature of the Range articles in The Range News) will be sharing her love of birds and many years experience of bird watching in rainforests with everyone.

Through Jeanette's eyes you will be introduced to the magic of seeing your first beautiful Noisy Pitta, discovering why Log Runner's are so special, or the reasons why we should all appreciate the Brush Turkey and not hate them.

To introduce people to bird watching, Jeanette will present a two hour identification workshop on Saturday 12th October. Bird ID books will be available at a reduced rate at this workshop.

This will teach participants the skills that will help you get started - what to look for, identifying characteristics, where to look etc. This introductory session will be held at the Barung Resource Centre from 1 to 3pm.

Subsequent fortnightly walks will alternate between morning (9 to 11am) and afternoon (3 to 5pm) walks at different sites to allow for spotting a wide variety of birds and a broader experience.

See the Barung Calendar of Events for walk dates and cost.

Because of the intrinsic nature of the walks, the number of participants will be limited to 10, so bookings are essential.

Be an early bird and book now - ring the of-

NURSERY NOTES

Nick Willis

As predicted in this very column last issue, late August saw substantial rain fall throughout our region. This has given the spring plantings a much needed dose of soil moisture to penetrate into, and has meant that nursery staff and volunteers have been busy sending out more trees to their happy new homes.

The rain corresponded nicely with the abundance of new species available for sale for the first time in ages, with more diversity becoming available weekly - so come in to the nursery and see for yourself.

But with warm weather and rain also come weeds!

October sees Weebuster week with all the related activities going on around the area. So what better time to promote the advantages of replacing rampant weeds with native endemic species.

A large proportion of weed species in our area are the result of exotic garden plants escaping from homes into bushland, through the dumping of garden waste along roadsides and over back fences, and self seeding with or without the help of fauna.

The beauty of gardening with endemic species is that it is actually desirable for them to spread into neighbouring areas. Endemic plants are also suited to our local soil and climatic conditions, and so often continue to grow through times of drought when many of the exotics die.

So come into the nursery, talk to us about where and what you'd like to plant, and grab one of our lists of native trees to replace weed species.

Don't forget - Barung also offers a free identification service for both native vegetation and weed species. If we cannot identify your sample on the spot, we can send it off to the Queensland Herbarium for identification. If you are bringing in a plant sample for identification, make sure you bring a sample showing branch, leaves, and if possible, flowers and seeds. Sometimes it is very hard to identify a couple of leaves by themselves!

Barung also has a great library and resource reference section for specific advice on weed identification and control, as well as books for sale on the subject.

WEED BOOKS FOR SALE in the resource centre

- **Weed Identification Deck**
DNR Qld \$4.50
- **Common Weeds of Northern NSW Rainforest**
by The Big Scrub Rainforest Landcare Group
& The Richmond Catchment Management Committee \$26.00
- **Suburban Weeds**
by Harry Kleinschmidt & Ailsa Holland & Paul Simpson \$22.00
- **Queensland Weed Seeds**
by Ernest Friend \$11.00

PLANT PROFILE

Spencer Shaw

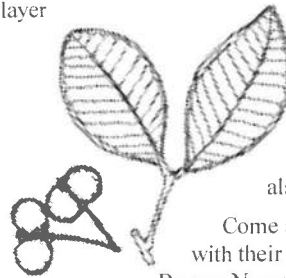
Twin-leaved Coogera

(*Arytera distylis* - Family: Sapindaceae)

Spring is here again and our local rainforests are full of new leaf growth. Some of our local plants produce beautiful coloured flushes of new growth and *Arytera distylis* is one of the most colourful.

Twin-leaved Coogera is a widespread but little known small tree occurring naturally from our coastal rainforests to some of our dry rainforests, thus it is adaptable to a wide range of conditions. As long as moist fertile conditions are provided while it becomes established, it will tolerate full sun and growth is improved.

The yellow bird-attracting fruit are produced in summer and split to reveal a black seed mostly covered in a red aril (thin layer

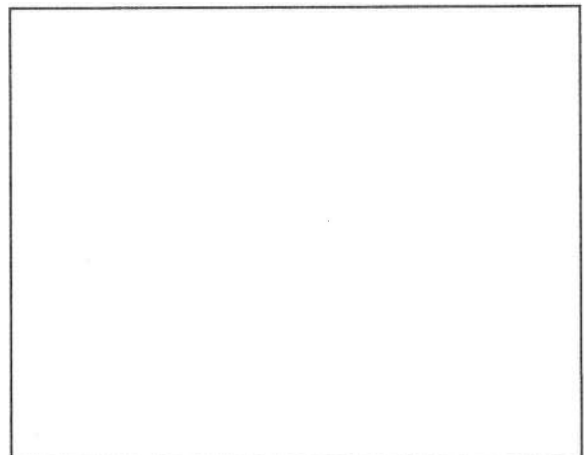
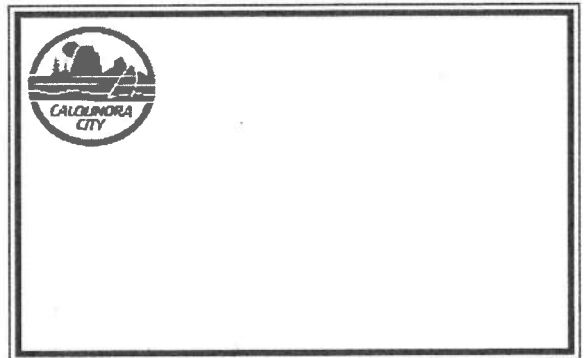


of flesh). Seed are quick to germinate and must be collected and sown fresh after removing the aril.

Slow-growing but long-lived. Twin-leaved Coogera also look great as a pot plant.

Come and check out these guys now with their lovely spring growth at the Barung Nursery.

Illustration from
Trees & Shrubs in Rainforests of NSW and Southern Q'land
published by University of New England.



BUTTERFLIES OF THE RANGE Bob

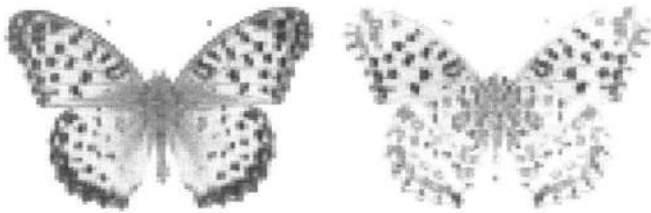
The Laced Fritillary

(*Argyreus hyperbius inconstans*)

(formerly "Australian Fritillary")

Now seems to be an appropriate time to be talking about this butterfly, as its larval foodplant, *Viola betonicifolia* (Arrow-head violet), has been growing very rapidly following that little bit of recent rain.

Presumed extinct in Queensland by many people, some of us are still hopeful that it will be seen again in our state.



The only living specimen I have personally seen in more than 30 years of searching, was in New South Wales. The site, however, seems very vulnerable to me as it is rapidly being over-run by bitou bush.

The "Butterfly and Other Invertebrates Club of Queensland" has a recovery plan for this butterfly, currently awaiting approval by the relevant authorities. Hopefully, once it is approved, we will start seeing the Laced Fritillary around in numbers again.

In Australia, the Laced Fritillary is known as a butterfly that is found in association with wetlands and Melaleuca swamps, because the food-plant grows most vigorously in these areas.

The pale yellow eggs are laid either on the foodplant, or on an object in close proximity to the foodplant, even on the ground.

The black larvae have an orange GT strip running from rear to front on their backs. They have a series of non-irritating spines, which are black with orange or reddish-pink bases, on their bodies. Larvae reach about 45mm when fully grown.

The pupae are approximately 26mm long and orange-brown when fresh. They then turn to brown or pale brown after about 24 hours. Normally they pupate on an object such as a stick rather than on the foodplant. This helps to ensure their survival. If they pupate on the foodplant, chances are that one of the other larvae may eat their perch out from under them, causing the larvae to fall to the ground and an inevitable death. They always pupate in a head-up attitude attached by the tail and a central silken girdle.

The adult butterflies are about 160mm from wingtip to wingtip and are an overall orange-brown colour with numerous black spots.

The undersides of the forewings are pinkish-orange, again with numerous black spots. The undersides of the hindwings are a pale brown with black and silver markings.

To see a freshly emerged adult with the beautiful pink-orange underside flying past is a sight to remember and hopefully one we can all start to enjoy.

For more information on this or any other butterfly, I would recommend *Butterflies of Australia* by Michael F. Braby, 2000. (copy in the Barung Reference Library)

Illustrations from [Butterflies of Australia](#), by Michael F. Braby, published by CSIRO Publ'g.

Local Wild & Edible Bernard Muraw-

Native Raspberry (*Rubus* species)



I regard the raspberry as one of the most sensual of all fruits. Biting into the soft, succulent berry reveals a sweet, subtle but deep flavour that I feel has no equal. Thankfully, Australia has seven native species of raspberries.

The raspberries are all climbers or prickly shrubs and are found near rainforest in many parts of eastern Australia. One occurs in the mountains of Tasmania - the alpine raspberry (*Rubus gunnianus*). The other species are: molucca raspberry (*R. moluccanus*), bush lawyer (*R. moorei*), pink-flowered native raspberry (*R. parvifolius*), rose-leaf raspberry (*R. rosifolius*), Queensland raspberry (*R. fraxinifolius*) and the green-leaved bramble (un-named species).

The genus name *Rubus* is from the Latin 'ruber' meaning red, which is commonly used for many Latin-based names that describe something that is pure red in colour.

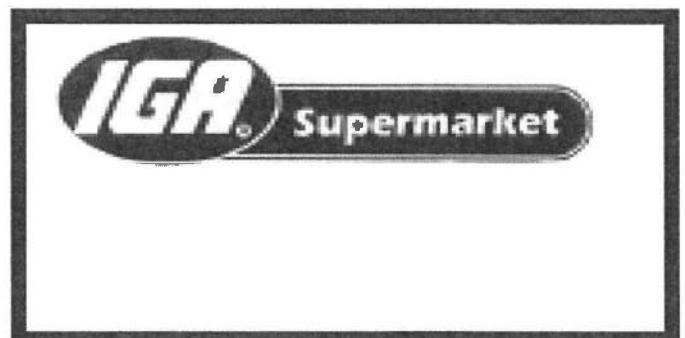
In keeping with the exotic *Rubus* species in Australia (i.e. blackberry), the native raspberry is fairly easy to grow and may sometimes be too easy as it can be very invasive. Some plants may sucker. They are not really suited to the main garden and would be better placed in a not so visible area, say near the vegie patch.

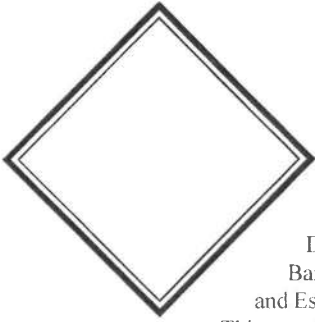
In general, the seeds germinate fairly readily and the plants perform best with plenty of moisture, light, and nutrients. They like most well drained soils with *R. rosifolius* suitable for clays and *R. parvifolius* for sandy soils. Depending on the species, either white or pink flowers appear, mainly in spring and summer, with the fruit ripening in summer and autumn.

It may come as no surprise that the fruits taste, well, like raspberries, though the taste can be just an imitation of the flavour of the cultivated raspberries you buy in the supermarket. I have tasted fruit from the same species that are rather dry and lack flavour while others taste beautiful. Many people claim that *R. moluccanus* does not have a good taste but then others (with different plants) will comment on how well they do taste. In general though, *R. parvifolius* and *R. fraxinifolius* have the better flavour.

Either way, all are ideal as jams and sauces and can be used in any recipe that requires raspberries.

Illustration from - [Rainforest Climbing Plants](#)
published by Botany Department, University of New England





A visit to Doug's place

from
Alan Wynn

During Landcare Week in August,
Barung organised a field trip to Douglas
and Estelle Haynes' property on Obi Lane.

This very interesting morning was made all the
more enjoyable by the steady rain that fell - needless to say no one was
complaining.

The Haynes shared with us things they have learnt about on-ground
revegetation, and I thought I would take this opportunity to share some
of them with you.

The project is a large one by any standards, with a total of 10 hectares
set aside for planting.

The first year was devoted to project planning, and a planting plan was
drawn up at 1:250 scale with codes detailing species and position for
each of the 3,500 trees in the initial planting. The final plan was based
on the late succession method described by Robert Kooyman in his
book 'Growing Rainforest.'

The 230 species selected for the site were chosen with the following
criteria in mind:

1. height
2. moisture requirements
3. soil requirements
4. leaf and flower characteristics
5. sun and frost tolerance
6. edge or interior suitability
7. successional stage (pioneer, secondary or mature)
8. fauna utilisation

The first planting in late autumn of 2000 has since been followed by
additional plantings, adding another 2,000 trees and completed by
autumn 2002. These figures do not include replacement plantings for
the 15% lost to drought and frost.

The final phase of the project will be to plant selected understorey
species throughout the site and to remove pioneer species once the
secondary species have become established.

The Haynes shared with the visiting group some of the lessons they
have learnt over the course of the project:

- There was little difference in growth rate in areas where pasture
has been retained to where it has been removed, though care was taken
to keep grass at least 1 metre from the outer margins of the drip line.
- Rare species, such as *Galbulimima belgraveana* and *Xanthostemon
oppositifolius* should not be avoided as they can grow very well.
- Microclimatic variability rather than soil moisture seemed to be the
principal determinant in growth rate variability.
- Mulch was essential in ensuring tree survival during drought.
- The initial 7 metre spacing was too broad. Subsequent plantings
with 4-5 metre spacing has reduced the weed maintenance and encour-
aged better growth due to competition.
- The use of more pioneer species (up to 30%) would have been
very beneficial in the initial planting.
- Be aware of the need for abundant frost tolerant species as cover
in frost prone areas. *Commersonia bartramia*, *Rhodospaera rhodan-*

thema and *Alphitonia petrei* are being trialled for this.

■ *Acacia melanoxylon* inhibits the growth of young trees. However
A. melanoxylon provides excellent cover in frost prone areas and will
tolerate high soil moisture.

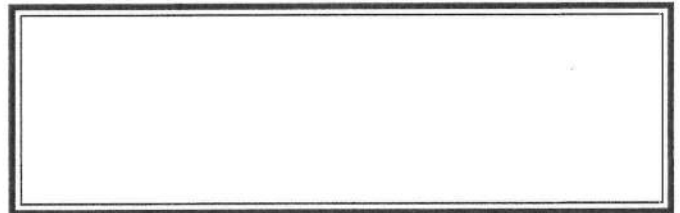
■ Trees are best planted at the tubestock stage as growth rates are
better, and less initial watering is required if trees are well mulched
and the planting hole is watered before planting.

■ Clear plastic grow tubes may enhance the freezing effect of frosts
and the heating effects of extreme summer temperatures, but will
protect young trees from hares and herbicide drift.



For myself the most important message from the trip was: take the
time to get to know your site, then you can best match each specie's
requirements to the conditions found on your patch.

Thanks to Douglas and Estelle for sharing their love of trees with us.


Editors note: Douglas and Estelle were the recipients of the 2002 Phil
Jacobs Farm Forestry Award, presented recently at the Barung Annual
General Meeting. See Photo page 11.



WEEDBUSTERS NEEDED
on the Obi Boardwalk.
Adopt-a-spot this month and help
us keep this community garden
A WEED FREE ZONE.

**CORRIDORS
OF GREEN**



Bushcare



Mary River Cod Community Network

Phillip Trendall
World Wide Fund for Nature
Mary River Cod Recovery Project

Warmer weather, rain and holidays lead to close encounters of the “endangered”

Just like many of us, the endangered Mary River Cod have been waiting patiently for the rain and warmer weather to arrive. I heard plenty of people crying for joy with the rain that fell in the catchment in late August, and I have no doubt that our freshwater fauna were doing the same.

With this water flow, fish such as Mary River Cod can move throughout the system to favourite pools, and take advantage of the increase in available prey, particularly mullet, which now have more of a free passage through the catchment. This increase in food availability is important, as the Cod need to build up their strength for the breeding season.

Mary River Cod usually breed when water temperatures reach around 20 degrees - usually in our early Spring months. Females move through our waterways looking for male cod with a nice hollow log in their territory. As with many bird species, it is the quality of the nest that is the deciding factor, and female Cod will often check out the available nest or den before deciding if the male is her perfect mate.

Most of the best logs will already have a big resident cod who needs to defend his territory against others. So the females that target the best hollows are most often breeding with the biggest males. These males tend to be genetically stronger and better at keeping predators away - the first step for the successful raising of young.

The second step is ensuring the hollow is up to scratch. From talking with Gerry Cook, founder of the Lake Macdonald Hatchery who has great knowledge about breeding Mary River Cod, a nest checklist for female Cod would most likely go something like this:

- **Strength:** Mary River Cod will push against the side of the hollow to test it is sturdy enough to keep the eggs safe.
- **Light intensity:** Cod love to lay their eggs in the middle of the pipes at the hatchery and this suggests that they avoid direct sunlight. This means the hollow would have to provide similar low light levels.
- **Water depth:** As stated before, Mary River Cod breed when the water temperature is around 20 degrees. If the hollow is at the bottom of a really deep pool, the temperature may never reach this cue. Therefore, Mary River Cod will target hollows at depths of around 0.5 - 2 metres where 20 degrees is reached during early Spring.
- **Water movement:** Water currents play an important part in successful cod breeding. When eggs are first deposited, a light current is required to help spread them out evenly, and the Cod inside the hollow may provide this. The eggs are strongly adhesive, but once hatched, the fingerlings can be washed away by even a small water flow. This means that the hollows must be in protected areas and is why the cod choose to breed in September/October when water movement is at a minimum within the catchment.

With all criteria checked off, the actual breeding can occur.

I wish I could tell of a gentle procedure involving two loving parents, but the Mary River Cod's nature does not allow this.

However, as Gerry Cook said: “Cod are very territorial and attack virtually anything that tries to come into their home.” This means that breeding is quite often a somewhat violent affair with the female disappearing very quickly after the eggs have been fertilised, perhaps seeking a second male to breed with. The male will protect the eggs and young fingerlings with great vigour from all forms of predators.

So over the next couple of months, Mary River Cod will be more active, with females moving around looking for partners. The chance of fisherman encountering an angry cod at the end of the line is increased. How would you feel if you were rudely interrupted while getting ready to go out on a date?

Mary River Cod are protected and must be released immediately, but if this is done poorly, the fish has a greater chance of dying.

The following short list will help ensure the best chance for survival after release:

- Use barbless hooks to make hook removal easy and quick.
- Use heavy line to speed up the capture and reduce stress on the fish. Light line can result in lures being left in the mouth of a cod, leading to disease or starvation.
- Use wet hands or a wet towel to handle a cod. Touching with dry hands will remove mucus from the cod body and increase chances of disease.
- If holding a Mary River Cod, support the belly so as not to damage internal organs. Never let the body dangle.
- Place the released Cod carefully in the water and swim it around. When ready, the fish will let you know it wants to go. Don't just throw the cod back into the water.

By following these simple steps, any Cod caught and released will have the best chance of survival, will hopefully find a partner, and add to the wild population of Mary River Cod in the catchment.

Beware of summer menaces - introduced vines and creepers

With the arrival of well-needed rain and warmer temperatures, some of our more invasive creeping weeds are ready for a summer assault on native vegetation.

These menaces come in many shapes and forms, with a variety of reproductive mechanisms that have proved very successful in colonising riparian vegetation. They are a major threat to re-establishing vegetation to help with Mary River Cod habitat recovery and WWF Australia has been working to help control two of the more dominant species - Cats Claw and Madeira Vine.

A brief look at these two species found along waterways in the Mary River Catchment will show why they are so successful and why WWF encourages their removal.

Cats Claw Creeper (*Macfadyena unguis-cati*)

Cats Claw gets its name from three tiny sharp hooked claws extending out from tendrils along the climber. These “claws” help the vine reach the tree canopy within the riparian zone. In spring and summer, the bright yellow flowers make the vines easily recognisable among native trees, and the long slender seed pods can be seen soon afterwards.

With thousands of light-winged seeds now ready to be dispersed from a single large vine, the seeds can be spread very easily by water through out the catchment. It is quite evident in some smaller creeks in the lower catchment that the dominant stands of Cats Claw are found where the backwater effect caused by floods has concentrated seed deposits, creating a blanket of young creepers.

In such areas, almost all of the trees are being overtaken by Cats Claw

continued page 10

Cats Claw Creeper (*Macfadyena unguis-cati*) from page

and during flood events, the creeper causes massive damage by acting like ropes to drag the tree down.



Madeira Vine (*Anredera cordifolia*)

Another common name for this deadly menace is 'Lamb's Tail,' because of the drooping racemes of heavily fragrant white flowers that appear in late summer and early autumn.

It is also known as 'Potato vine' because of the knobby aerial tubers that grow along the stem. These tubers are one of the keys to its reproductive success.

Madeira Vine leaves are fleshy and heart shaped, and can actually regrow if the vine is cut and dropped on the ground.

If the vine is cut, the aerial tubers will also drop onto the ground or into watercourses, ready to provide the next generation of creepers. This can result in thousands of new plants, as the tuber itself can break up and still grow. These tubers readily colonise new areas when spread by water or by dumping garden waste along roadsides or waterways.

Madeira Vine has been recorded at growing up to 1 metre/week in favourable conditions, and can weigh down branches easing its spread to neighbouring trees.

If you want more information on any of the mentioned creepers or any other exotic weed issue, please don't hesitate to contact the WWF Mary River Cod Recovery Project or contact Barung Landcare.

Another partnership link for Barung Lin Fairlie

The inaugural meeting of the Blackall Range Branch of the Wildlife Preservation Society of Queensland (WPSQ) was held last month at the Thynne Education Centre at Mary Cairncross Scenic Reserve.

A committee was elected but unfortunately no one put up a hand for the position of President. Without a doubt, there are Barung members who are already members of WPSQ or who will become members of the new organisation. The secretary is Peter Pollock (phone 5494 8067) but he will be away until later in November.

If any of you would be interested in joining the committee, enquiries can be directed to Lin Fairlie (phone 5435 8038) until Peter's return.

WPSQ has been donated a block of land at Witta and will be working closely with Caloundra City Council and Barung to draw up and implement a management plan for the property.

A joint Enviro-fund application has already been made between Barung and WPSQ and if successful, will fund more trees, especially fig trees, to be planted on the western escarpment. The land does have a weed problem, so there will be working bees of the new group to remove groundsel, in particular.

Joint meetings on wildlife related topics will be held, probably after the New Year.

Jan Oliver, Director of WPSQ, feels the habitat is right for spotted quolls, so maybe this will be where you will see them for the first time up here.



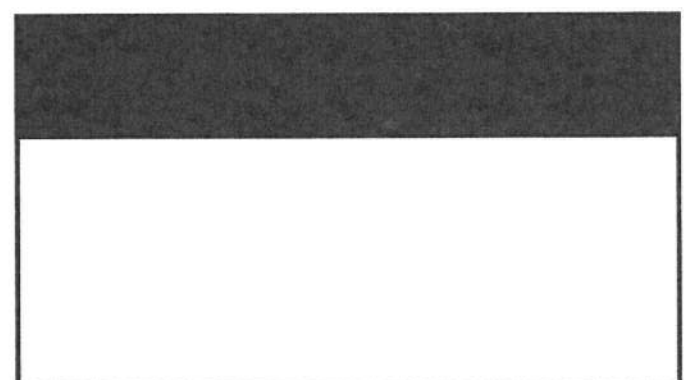
Watch for further announcements on the development of this important local wildlife property in the Range News and Barung Newsletter.



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FARMCARE - LANDCARE IN HORTICULTURE

John Muir

Fruit-growers pilot Waterwatch monitoring on-farm!

A summary of the Envirofunded Waterwatch Project with the SC Sub Tropical Fruitgrowers Association

This pilot, an on-farm Waterwatch program, is a first for intensive horticultural growers in Queensland. It will involve local growers in measuring water quality to identify potential point source pollution off their farms.

The project involves a partnership between the Sunshine Coast Sub Tropical Fruitgrowers Association (SCSTFA), government and natural resource management community groups involved in Waterwatch.

The project assists growers in understanding broader community water quality issues, interpreting results and auditing their environmental status.

As a result of this project, we hope to see:

- changes in farmer knowledge, skills and attitudes towards water quality indicators as a measure of sustainability and on-farm increases in efficiency of production;
- the adoption of Best Management Practices (BMP) on-farm to address the identified problem areas such as erosion, layout, buffer zones and filter strips, cultivation practices and chemical hygiene etc;
- the development of reproducible systems for farmers to monitor their farm activities and develop appropriate Environmental Management Systems (EMS);
- better communication between farmer and community groups with regional but, at times, divergent interests. It is anticipated that positive feedback to growers, especially from "downstream" communities will result in greater demand for assistance and data collection on farms; and
- better understanding by the community of the unique and complex issues of Environmental Management on farms.

The project landholders (SCSTFA members), will be involved in the collection and interpretation of water data, and will therefore maintain and manage the project. Farmer input of time and money, as well as wider SCSTFA membership funds towards the project, will ensure that there is always self-help management of the project and a sense of value and achievement.

Growers will be able to make better decisions on nutrient management as they do now through soil and tissue testing. Economic efficiency considerations will lead the way for wider adoption of practices beneficial for more sustainable production and the broader environment.

It is hoped that the outcome of this grower pilot project will influence both the wider SCSTFA membership and other agricultural industries, as well as partner organisations such as Dept. of Primary Industries (DPI), Dept. of Natural Resources & Mines (DNR&M), the Environmental Protection Agency (EPA) and Queensland Fruit and Vegetable Growers (QFVG).

Such expansion of on-farm Waterwatch monitoring programs will soon be accepted by all industries aiming for 'Due Diligence' and 'Duty of Care' through such initiatives as BMP and EMS.

Maroochy Waterwatch is recognised nationally for pioneering such initiatives, and is fully supported by the wider community, with an EPA accredited Quality Assurance (QA) system that leads the way for other groups.

Maroochy Shire Council has also proposed a significant contribution towards addressing community catchment and Waterwatch issues in 2002/2003, including on-farm agricultural sustainability demonstrations. This support will pave the way for similar activities throughout the agricultural portions of other catchments, shires and regions.

FARM FORESTRY NEWS



Farm forestry trial/research site needed


Expressions of Interest will soon be sought from local landholders for a high profile site (1-2ha) on the Range, for the establishment of a demonstration and research farm forestry plantation.

The project, developed in conjunction with Private Forestry Southern Queensland (PFSQ) and Queensland Forestry Research Institute (QFRI), will be invaluable as a demonstration of the suitability of the region for the production of high quality sub-tropical rainforest cabinet species.

Please contact Mim or Ashley if you are interested in knowing more about this exciting project.



THE FARM BARN

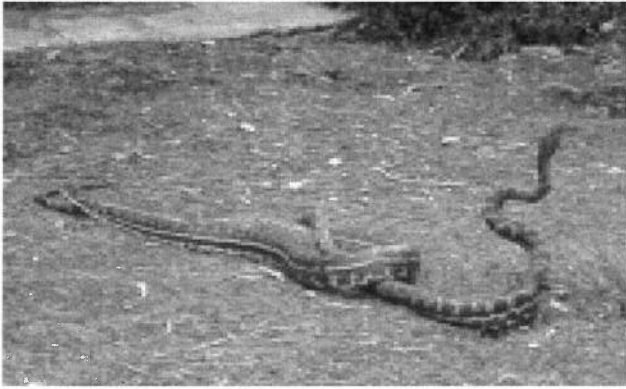


TOWN & COUNTRY

If you are growing trees for Farm Forestry in this region, please get in touch with the
BARUNG FARM FORESTRY SUB-COMMITTEE
via Mim at Barung - ph 5494 3151, or Ashley - ph 5451 2267.
The Barung Farm Forestry Sub-committee is developing a database of local growers, to keep you up-to-date with our farm forestry education program & activities.

DRIVERS BEWARE

As the weather warms up, more snakes are moving around, and many have already become victims of careless driving.




Boris - the resident carpet snake at Barung members Vivienne and David Fraser's property, "Fraser's Selection" - was caught in the act recently. David estimates that Boris has been on the property for about 20 years. Thanks for the photo David.



Barung's recent winter visitor moved into the big elk horn on the verandah post in the Nursery. "Sebastian" as Angie named him (or her), came and went over several months, disappearing into the roof (what happened to the rats?), then returning to his hidey hole in the elk horn. On warm mornings he was caught draped over the edge, sunning himself in the morning sun, then curling up inside the elk again as the temperatures dropped. He surprised many a meeting held at the front of the office, but was unperturbed by the comings and goings of staff and customers alike. In early September he moved on - we presume in search of a mate. See you next winter.






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OUR WATER

Kym Stanton



We all use water

Over the next 12 months, this column will feature excerpts from the Australian Water Association (AWA) *We All Use Water* education program which is sponsored by Calacqua.

The Department of Natural Resources and Mines is currently developing a strategy regarding future water supplies for Southeast Queensland, so it is important that the community is well-informed in relation to these issues.

Jenifer Simpson has compiled the *We All Use Water* information with a team of talented people, several of whom reside here on the Sunshine Coast. More information from this easy-to-read, up-to-date and factual resource can be found on the AWA's website www.awa.asn.au

An Introduction to water - a user's guide

We all know that water is essential for our lives - but we don't always take the time to think about how its quality affects not only our health, but that of our environment as well. Even small changes in water quality may cause a change in the lives of the creatures dependent on it. The change could be a calamity for one species, or it could make another so vigorous that it gets out of control.

Water has a powerful impact on the balance of the environment. Too much, or too little or 'not the right sort' can have a devastating effect.

Water, H₂O, is one of the simplest molecules, but it readily participates in some of the most complex chemical reactions. It has an affinity for many other elements and compounds and a great ability to combine with, dissolve and transport them. This accounts for the vital role it has to play in the existence - and sometimes the downfall - of all living matter.

It is almost impossible to completely separate water from other molecules. Even rain falling through the atmosphere collects oxygen and nitrogen compounds during its descent. Dust and particles floating in the air are also gathered up.

The apparently pristine water that gushes from a spring or a mountain stream may be far from pure. It will contain small amounts of minerals from rocks with which it has come in contact and possibly large numbers of naturally occurring micro-organisms.

Solutions and suspensions

Water is a compound that consists of one oxygen atom and two hydrogen atoms (H₂O). When water is in its liquid form, instead of the molecule remaining as a single entity, it splits into two electrically charged particles called ions.

These are the hydrogen ion (H⁺) that has a positive charge and the hydroxyl ion (OH⁻) that has a negative charge. Because the ions have opposite charges they attract each other. Water is able to conduct electricity because it contains these charged particles.

H₂O H₂O H₂O H₂O

When a substance is introduced into water, it may dissolve or become suspended in it. Some substances (e.g. salt) dissociate into ions when they are dissolved in water so the solution becomes a good electrical conductor. They are called electrolytes.

There are strong and weak electrolytes depending on how much the substance dissociates.

Other substances (e.g. sugar), when dissolved in water, break into individual molecules that disperse through the water. They do not break into ions so they do not increase the ability of the water to conduct an electric current. They are called non-electrolytes.

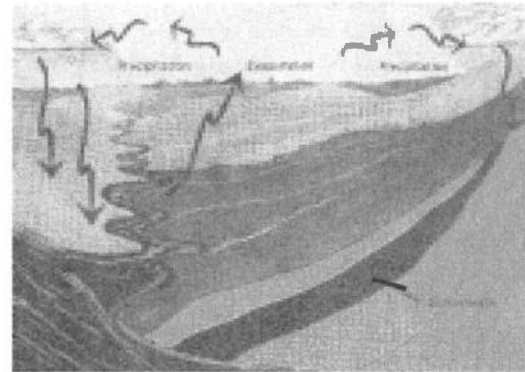
A suspension consists of finely divided particles dispersed in the water. The particles are quite large compared to, for example, a sugar molecule, so eventually they will settle onto the bottom of the container. Often the particles also have electric charges (clay particles found in water do) so that the charges repel each other and prevent the particles from joining together.

The Water Cycle

The amount of water we have on earth does not change. No 'new' water is imported from extraterrestrial sources and only a very small amount is lost from the upper atmosphere.

When water evaporates, it forms into clouds and returns to earth as rain. The amount of water that evaporates each year and the amount that rains back to the ground are virtually constant. If we have a drought, it is not because the world's rainfall for the year is less, but because the rain is falling somewhere else and not on us.

When water evaporates it leaves behind the other molecules it was associated with and is thus purified.



Natural changes in water quality occur as a result of geological or climatic processes such as erosion, drought and flood. Human activity can greatly accelerate the changes. The way we manage water and wastewater can make visible impacts on the environment.

When the world's population was smaller and people were hunter-gatherers, the natural environment was relatively balanced. Our freshwater supplies and rivers were unstressed. Water was used, became 'wastewater' and nature recycled it.

The Urban Water Cycle

This simple balance was upset when agricultural production and industry replaced the hunter-gatherer lifestyle. Cities developed and expanded. As our population has increased so has our water usage - a variety of machines encourages us to use more water than ever before. We use it once and then 'throw it away'.

We are placing greater demands than ever before on our water supplies and our environment. Water management in many places is unsustainable and new supplies of water are becoming scarce.

Ideally we should look upon our use of water as a loan from the environment. Like anything we borrow, we should use it wisely and return it in good condition, for we have a responsibility to ensure that our environment is not degraded.

VOLUNTEER NEWS

Volunteer of the Year - 2001/2002

Bruce Wilson

For the past 12 months Bruce Wilson has waged a campaign of eradication with extreme prejudice against Barung's own axis of evil: namely FlickWeed, Morning Glory, Liverwort and Turkey Rhubarb. In fact if weeding was an olympic sport Bruce would be a prime choice to bring home gold for Australia.

Bruce has put in a steady day a week in the nursery on weed control and at least a day a week on the weediest sections of the Boardwalk. Many of you who walk the Boardwalk will have noticed the slow but steady eradication of the "Blue Menace" - Morning glory. This is largely due to Bruce's consistent efforts, along with the help of other dedicated weeders.

Bruce has also attended many planting days and it was with great pleasure that he was recognised with Barung's 2002 Volunteer of the Year Award for his on-ground efforts. Keep up the good work Bruce - you are an inspiration to us all.

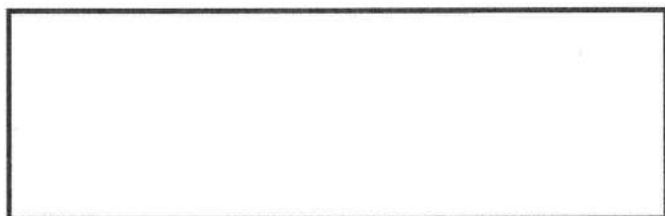
From the Office

Angie Todd

I have had the pleasure of working with wonderful volunteers over the past year and I wanted to record my thanks to each of them for their support and friendship.

- to the lovely Alison Bennett, our researcher, who just managed to put the finishing touches to our volunteer program before she was snapped up by a lucky employer.
- to Elaine Grant who, despite her love-hate relationship with the computer, ensures the Barung library and our press clippings collection is the envy of any self-respecting organisation. Thank you Elaine for your generosity of spirit.
- to Nora Julien whose energy and freshness is contagious. Nora provided a unique perspective on the issues of the day, which made for lively and interesting conversation during newsletter mailouts.
- to Julie Lehmann whose tenaciousness and attention to detail ensures a job is done well - thanks for extra hours you put in Julie which don't go unnoticed.
- to the unflappable Barry Liddell, our computer expert, who even takes calls out of hours by Barung staff needing help with their home computers. Barry has been volunteering at Barung for 7 years and is a permanent fixture of the Barung office. Thanks Barry for your staunch support since I started with Barung.
- to Claire Wynn, a database expert, who deftly designed a few databases and re-designed an existing one to make it more user-friendly, and provided computer training for some of our volunteers. Thanks Claire for your sympathetic ear, patience and compassion.

Thank you to everyone for making the past year so enjoyable and



LETTERS

Dear Mim,

LANDCARE WEEK

Congratulations on providing another quality event promoting community based sustainable natural resource management.

(Caloundra City) Council would be pleased to discuss opportunities to support the initiative again next year.

Yours faithfully

Chris Allan, Senior Nature Conservation Officer, CCC

Attention Barung Management Committee,

As a member of the community attending several public meetings, workshops etc in the Maleny & Environs Area in the last couple of years, I should like to congratulate not only your organisation, but in particular the work & presentation of the 'public face' of Barung, Lin Fairlie. Her passion & commitment for her role in your Landcare group (as Mother Earth, is it?.....) is always evident.

It's most reassuring to see her there at so many functions, 'spreading the word', and speaking up for the Environment.

More power to both Barung AND 'Mother Earth'!

Vivienne Fraser



Congratulations to...

... Guy Morgan our ex Green Corps Supervisor on his new position with the environment team at Caloundra City Council

Thank you to ...

- ... Jan Tilden for your last minute help with the 01/02 Final Report.
- ... Mitch & Maureen O'Brien for their donation of large Elkhorns from a fallen privet.
- ... David Linton & Ashley Sewell for creating our wonderful Land Restoration and Phil Jacobs Farm Forestry Award trophies.
- ... Brisbane Frog Society for their donation of 5 x Frogs of Greater Brisbane CD Roms and assisting us with our Frog ID Workshop.
- ... Lin Fairlie for your generous \$150 donation towards the purchase of a Barung BBQ.
- ... Francis Woods for donation of Black Apple Seed.
- ... Top of the Range Meats for your generous discount on meat for Landcare Week.
- ... Ruth Fielder for your donation towards revegetation.
- ... Neil Caldwell from Caldwell Electrical, for installing the Nursery water feature pump and repairing our sensor lights.
- ... Darryl Reinke for your help with the Caloundra City Council Community Grants applications.
- ... Paul Alister from Alister Multimedia Video Editing & Filming, for converting the Expo TV ad from video to multimedia CD Rom.
- ... Joan & John Dillon, Daryl Reinke & Craig Hosmer for your help with preparing the Maroochy Shire Council Riparian Restoration Grant Application.

WEEDS WEEDS WEEDS WEEDS

Glossy gardening magazines - are they part of our weed problem?

A very interesting Weed Forum held in Brisbane recently set a high standard for community organised events. Barung is planning to organize a similar forum in 2003.

One very interesting paper was entitled: 'Plants behaving badly: Dealing with Public Perceptions of Weeds' by G.C.Sieper, J. Morton and P. Donatui.

Their research examined three major gardening and lifestyle magazines over a 12 month period to ascertain what information was being presented about garden plants that has the potential to become weeds. Management advice was an aspect the researchers monitored. They undertook a content analysis recording the number of articles that dealt with native plants, weeds and exotics/ornamental plants. The results were relatively consistent over the three magazines. They averaged 79% of articles about exotics, 18% about natives and 3% about weeds, the majority of which were about lawn weeds.

Considering the invasion of bushland by 'exotic' weeds, the time may have come to write to the editors of such magazines, expressing concern about the lack of information being presented about garden-escapees as weeds.

A keyword analysis was also carried out. The word 'weed' only occurred in 10% of the 425 articles, and only 0.7% mentioned 'weed spread.' The word 'exotic' was used positively to describe plants in Australian gardens no matter where they were from. 'Native' rarely referred to 'Australian natives' and was usually used in conjunction with country of origin eg "native to Asia."

Plants well recognized by the weed conscious community and/or scientists, were often spoken of as 'needing room to move' or 'having vigorous growth.' The authors felt that this was a deliberate move. Exotics were treated as desirable and certainly not mentioned for their weed potential.

Little attention was paid to the suitability of a particular species of native plant for a specific situation. Natives were broadly spoken of within a genera and not as particular species suited to particular environments - information which is vital to revegetation success.

The survey showed, among other things, that urban residents have constructed a mental partition between their 'urban space' and 'the natural bushland.' They then do not see the relativeness of invasion and are only interested in the beauty of their garden. Of course, this is an individual's right, or is it?

Plants cannot always be completely contained within the garden boundaries. This highlights the need to promote local native plants and the need to try to carefully consider the exotics in one's own garden. Not all landholders want a totally native garden but at least we can be careful about what we plant, considering that most of the major environmental weeds currently impacting on bushland were originally introduced as garden plants.

If a plant spreads easily, by whatever means, in your garden it could behave in exactly the same way in the bush.

Of course, one of the difficulties in writing articles for magazines with Australia-wide distribution is that what grows confined in southern gardens can spread uncontrollably in warmer climates like ours. This is another aspect of these journal articles which needs to be brought to publishers' attention.

Big fruit a big gamble?

cont'd from p 16

Last newsletter we talked about the pros and cons of trees and shrubs using wind as the dispersal agent of their seed.

One thing in favour of wind dispersed seed is that there is no need to rely on the fickle palates of the local animal population to spread your seed, just a good windy day! Also there is no need to waste energy producing an edible fruit, your seed are ideally light so they can blow further.

So why are fleshy fruits still a popular means of dispersing seed especially in rainforests? Rainforest ecosystems are relatively stable but also highly competitive environments. The forest floor is often a shady place and tiny seedlings have little chance of survival eg there is no germination of eucalypts or pioneer species on an undisturbed rainforest floor. Larger seed, however, quickly develop into larger seedlings that have a much better chance of survival.

In an undisturbed rainforest understorey with a canopy in excess of 20m, seed need to have a minimum size of 10mm if they are to survive as a seedling. The many native laurels are an example of this.

But if you produce a seed that is too heavy to be blown around, how do you spread your seed? Well for starters, you can wrap it in some gaudy colour that attracts certain members of the local fauna population and if you're feeling really generous you might chuck in some nutritional value for good measure.

If you can encourage/trick the local fauna into spreading your seed by wrapping it in a fruit, then the main limiting factor to how big your seed can then be is the size of the mouth or beak of the said fauna. As I said before, the bigger the seed you can produce, the better your seedlings' chances of survival are in the competitive environment of the forest floor.

But these evolutionary adaptations to larger fruit could also leave you very vulnerable if the fauna that spreads your seed disappears - and this is what has happened in northern New South Wales and SouthEast Queensland rainforests.

For various reasons the megafauna that inhabited the rainforests of our region, such as Cassowaries and the larger marsupials, have disappeared over the last 10,000 years or so. As a result there are about twenty remaining plant species in our region (Nth NSW & SE Qld) that produce a fruit in excess of 30mm in diameter, at least half of which are now endangered or very limited in their distribution. Their ability to spread themselves has been severely curtailed with the loss of the large fruit eaters and their only means of spread now is by water, by bouncing down hillsides, or us!

So give some thought to the survival of our larger fruiting flora and find a space for them in your reveg' or even your regen' site.

A note on Cassowaries:

(from the Community for Coastal and Cassowary Conservation Inc.)

"Cassowaries have a 'gentle' digestive system, which passes the seeds, unharmed and often with flesh still attached, into a pile of compost. Apparently, the smell from the pile protects the seeds from predators such as white-tailed rats, while keeping the seeds moist. In this way the cassowaries 'cultivate' the forest, dispersing only those seeds which are useful to them.

It has been estimated that 70 to 100 species of plant depend almost entirely on the cassowary to disperse their seeds. This means that the bird plays a key part in the ecology of the rainforests of the Wet Tropics and there is growing concern that, as cassowaries disappear, the forest will lose many species of plants as well as the other animals, which in turn depend on these plants".

See: www.cassowaryconservation.asn.au

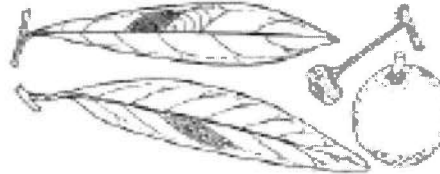
Big fruit a big gamble? Spencer Shaw

Some of our larger Fruiting Locals include:

- Castanospora alphanthii* - Brown Tamarind
- Endiandra compressa* - White Bark
- Endiandra pubens* - Hairy Walnut
- Endiandra virens* - White apple
- Gmelina leichardtii* - White Beech
- Lepidozamia peroffskyana* - Shining Burrawang
- Pouteria australis* - Black Apple
- Pouteria eerwah* - Shiny-Leaved Coondoo
- Pouteria pohlmaniana* - Yellow Boxwood
- Siphonodon australe* - Ivorywood
- Syzygium hodgkinsoniae* - Red Lillypilly

... cont'd page 15

Endiandra pubens
- fruit 5-6cm diameter, deep red to purple



Endiandra virens
- yellow fruit to 5cm diameter



Endiandra compressa
- blackish fruit up to 4cm long

- | | |
|-------------------|-------------------------|
| President | <i>Elaine Green</i> |
| Vice President | <i>Karen Shaw</i> |
| Secretary | <i>Lin Fairlie</i> |
| Treasurer | <i>Patricia Brunton</i> |
| Committee Members | <i>Tracy Adams</i> |
| | <i>Richard Francis</i> |
| | <i>Penny Riddoch</i> |
| | <i>Heather Spring</i> |
| | <i>Clayton Stokoe</i> |
| | <i>Jo Todd</i> |

Barung Landcare...



... The Rewards are Magnificent.

- | | |
|--------------------------|--------------------------|
| Coordinator | <i>Mim Coulstock</i> |
| Nursery Manager | <i>Russell Botterell</i> |
| Assistant Nurseryman | <i>Nick Willis</i> |
| Butterfly Guru | <i>Bob Miller</i> |
| Reveg Officer | <i>Alan Wynn</i> |
| The Cod Line Editor | <i>Eve Witney</i> |
| Corridors of Green | <i>Marc Russell</i> |
| Farmcare Project Officer | <i>John Muir</i> |
| Education Officer | <i>Mim Coulstock</i> |
| Barung Newsletter Editor | <i>Mim Coulstock</i> |
| Administration Officer | <i>Angela Todd</i> |
| Farm Forestry Advisors | <i>Ashley Sewell</i> |
| | <i>Laurie Capill</i> |
| | <i>Penny Smith</i> |
| ArtisTree Coordinator | |



WORKING FOR OUR FUTURE

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