

BARUNG LANDCARE NEWS



February - March 2003

WORKING FOR OUR FUTURE

**From
CHAINSAW
to fine
furniture
2003
MALENY WOOD EXPO**



The countdown is on for the 2003 Wood Expo, to be held at the Maleny Showgrounds on 3, 4 and 5 May.

2003 will be the ninth consecutive *From Chainsaw to Fine Furniture*™ Maleny Wood Expo that Barung has hosted.

This event, begun in 1996 as a way to raise awareness about sustainable timber harvesting and use, has developed into one of the most popular ecotourism events on the Sunshine Coast and the major event for the Blackall Range.

The Wood Expo has now become Barung's primary education project and main fund-raiser for the year, with all proceeds going to maintain the Resource Centre in Bicentenary Lane, and on-ground works in the hinterland area.

The success of the Wood Expo is due to two main factors apart from the vision of the organising teams: first the quality and variety of our excellent wood artisans and secondly, the dedication of Barung and community volunteers. Without the help of more than 150 volunteers, the show would not go on.

Our exhibitors have come out in force for Expo 2003. After only a couple of weeks, all sites in the SES Trade Pavilion and most of the Main Pavilion Fine Furniture sites have been booked. The outdoor sites promise a broad variety of displays and demonstrations.

And the same must be said for the strong core of volunteers who are already helping out:

√ Barbara Nye, Raffle and Prize Coordinator extraordinaire already has prize commitments from local potter Shirley Marsh, Lyola Pavilions, Maleny Mowers, King Ludwigs Restaurant, Maleny Country Cottages, Lindsay Muir, Heather Jones, Cairncross Lodge, Terrace Seafood Restaurant, Australian Wild Foods, Bench Pro, John Gerritson, the Tamarind, Graatz Mexican Restaurant; and Hollow Log Homes.

√ Inga Green and Shirley Marsh are "scouting out" relics from past timber days to give us a new glimpse into our timber heritage;

√ Frank de Groot and Peter Marsh with their plans for extending the post and rail fence on the Millers Paddock, and ideas for old machinery and other traditional woodcrafts;

√ Penny Riddoch and Debbie Taylor comprise our new Marketing Team;

√ Linda Ivezic and Lin Fairlie, both bent on making the Expo truly sustainable with recycling of all site rubbish;

√ Elaine Green's and Irene Keton's respect for the humble Bunya nut has escalated after peeling hundreds for the expanded Bushfoods Cafe;

√ Joe and Kaye Herron are firing up the Landcare BBQ;

√ Laurie Capill, Col Baumann and Ashley Sewell intent on upping the farm forestry component to new heights;

√ Les Hall is working with the forestry boys to focus and create huge interest in the Speakers Venue;

√ Penny Smith's refined *ArtisTree - A Fine Line Exhibition* now looks into the future;

√ Heather Spring is redesigning the website and dreaming up Ecotours to die for;

√ Julie Lehmann is taking the role of Volunteer Coordinator into the realm of art; and

√ Marek Malter, Parking Coordinator, has already finalised parking plans and signage for the weekend.

The Wood Expo is a great event and we want to make it even better, so if, as a Barung member, you can offer your time and skills between now and May, please raise your hand and let us know.

We need help with everything from answering phones to mailouts, from pre-cooking bushfood morsels to sewing calico curtains for exhibition spaces, from fencing the Showgrounds with hessian to distributing flyers - in fact we can utilize almost any skill you can offer. Your help will ensure not only the best Expo to date, but also Barung's stability for the next year.

Barung is your landcare group and our role is to help you caretake this unique area in which we all live, so that the natural resources of the Blackall Range remain diverse, viable and sustainable into the future.

Included in this Newsletter is a Volunteer Sheet for the Expo. Please try to fill one or more slots in an area that interests you and return to the office as soon as possible. If you are out of town on the actual Expo weekend but would still like to support the event, please talk to Angie or Mim in the office.

Working behind the scenes at the Expo is great fun. All you need is enthusiasm, a sense of humour and some time, and it's all in the name of landcare. So give it a go, give us a ring, and help make this the best Expo ever!

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WELCOME TO NEW MEMBERS

J G & W D Porter	R & M Greig
S & G Molinaro	Desley Fricke
Jane Dalby	Keith & Cheryl Schelberg
Tony & Linda Kelly	Merrilyn Cannon
Liz Cole	Bill & Lois Walters
Richard Cranbrook	G Prichard-Marcus
Judy & Dave Bull	Sharon Stone
David Gole & Judith Sinnamon	Chris & Debbie Bourke
Rev & Mrs D Johnstone	Roslyn Trevillien
M Nolan	Wayne Wadsworth
Kim Hinckfuss	Di Fogarty
Glenn Bryant	Greg Smyrell
Greg & Donna Williams	Julie Fraser & Lloyd Pumpa
L Findlay & J & N Mansergh	Claire Parris
D & J Paulson	Sue & Bob Hall

THANK YOU FOR YOUR LANDCARE SUPPORT

FROM THE PRESIDENT

Elaine Green

For centuries before the coming of European people, the Indigenous inhabitants of this area would celebrate the bountiful harvest of the Bunya tree (*Araucaria bidwilli*) with feasting and rituals. When the Bunya pine cones were ripe, they sent messenger sticks to ask other groups to come and share the bounty. Up to 700 indigenous people would travel by foot to Maleny from one and two hundred miles away, to the place where the Baroon Pocket Dam now provides water for the burgeoning Sunshine Coast City below.

It seems inconceivable to us today that an area of such enormous cultural significance to Australia's Indigenous people could be drowned with so little outcry.

Just trying to wrestle open these tasty little treats with a knife is enough to instill a profound respect for a people without metal tools. Bunyas were mostly cooked in the coals, as Murrie people did not usually possess utensils for boiling food.

I found that boiling until the skins split made it a lot easier to extract the nuts. The Bushfoods Café at the Wood Expo will be featuring bunyas in different recipes as the most important bush food source in the local area.

Barung has been fortunate to have Beverly Hand, a Gubbi Gubbi descendant of the Djala people who originally lived on the Blackall Range, as a trainee for the past 3 months.

Beverly recently took two groups of people on a walk to the Narrows area below the Baroon Pocket Dam wall, talking with us about her family history and answering a lot of questions we had.

We made a human timeline, which clearly showed the Australian Indigenous people as one of the oldest cultures known on earth at an estimated 75,000 years. The incredibly small amount of time (200 years) since European people came to Australia and the environmental damage we have done provided a stark contrast.

Thank you Beverly for sharing this with us and all the best in your future.



New Nursery residents: within a week of installing a Hollowlog Home parrot box in the nursery a pair of pale headed rosellas took up residence. These four young 'uns are living proof that nesting boxes work. Hollowlog Home boxes are available from Barung for a variety of fauna - and make great presents!



DEADLINE

FOR April - May NEWSLETTER
WED 19TH MARCH

Please let us know of any change of address so we can keep membership data up-to-date.

Please renew your memberships

- your support is very important to Barung.

THANK YOU

THE STATE OF THE LAND

TAX INCENTIVES FOR CONSERVATION EXTENDED

Landholders who manage and conserve their land will now be entitled to tax incentives when entering into voluntary conservation agreements with government agencies, according to a recent announcement by the Minister for the Environment and Heritage, Dr David Kemp, and the Minister for Revenue and Assistant Treasurer, Senator Helen Coonan.

Dr Kemp said the change extends existing tax incentives and provides financial benefits to landowners who enter into perpetual conservation covenants, voluntary agreements between a landowner and an authorised body which set out actions to manage and conserve native vegetation. Previously, tax incentives were not available for conservation covenants entered into with state or local government agencies.

Conservation covenants are becoming increasingly popular with over 2,000 covenants covering nearly 1 million hectares of land already entered into or currently in the process of negotiation.

According to Senator Helen Coonan, "Today's announcement extends tax incentives to people entering conservation covenants with government agencies, such as state departments of parks and wildlife, where they had previously only applied if entered into with deductible gift recipients.

"It allows people to claim an income tax deduction for any decrease in land value as a result of entering into a qualifying conservation covenant provided the landowner receives no payment for entering into it. It will apply to covenants entered into on or after 1 July 2002. Capital gains tax provisions continue to apply as if it was a sale or gift of land.

Qualifying conservation covenants must be approved by, or through a program approved by, the Commonwealth Minister for the Environment and Heritage.

A conservation covenant is registered on a property's land title, formalising the commitment by landholders to put in place conservation activities such as fencing off rare plants, seed collecting and tree planting. For further information on the Government's conservation initiatives, visit www.ea.gov.au.

ON FLYING FOXES ...

Detailed coverage of the Federal Court ruling on the culling of flying foxes is unavailable as yet, however the Queensland Fruit and Vegetable Growers (QFVG) have advised that the ruling adds more confusion to controlling flying foxes in the horticulture industry. The action appears to indicate the current permit approval process may not be adequate for growers wishing to cull flying foxes. For further information, please contact Environment Australia on (02) 6274 1111.

Queensland Parks and Wildlife Service (QPWS) is preparing a conservation plan for flying foxes. The conservation plan will set out management strategies for all four species of flying foxes and it is critical the fruit industry takes part in developing the plan to ensure access to damage mitigation permits is maintained. Also, it is important to balance conservation strategies with the management needs of fruit growers. Submissions have been requested by 10 March 2003. QFVG will coordinate a submission on behalf of the horticulture industry. Please contact Jane Muller from QFVG on (07) 3213 2444 for additional information.

BURNETT-MARY SALINITY HAZARD MAP RELEASED

The Burnett-Mary and Western Catchments of South East Queensland Salinity Hazard Map was released recently.

Salinity hazard maps are a useful regional planning tool, but they have been prepared at a 1:250 000 scale and can not, and should not, be used to determine whether individual properties are prone to salinity. The maps indicate where landscapes are susceptible to salinity, but not where there may be a salinity problem right now, or in some instances, ever.

A lot more work must be done for us to use that information in conjunction with a raft of other natural resource management tools, to best plan for a sustainable future. As per the release of the previous two salinity hazard maps, the Government has responded by tightening performance requirements for all land clearing permit applications for "salinity-prone" land in the Burnett Mary and Western Catchments. If 'salinity-prone' refers to those areas identified as 'hazardous' in the salinity hazard map, Queensland Farmers Federation will require urgent explanation by the State Government as to why a regional planning tool is to be used in the assessment of property vegetation management applications.

The maps only provide broad catchment assessments. Farmers have still not been given any guidance about actions at the farm level, and cost.

A copy of the Burnett Mary and Western Catchments of South East Queensland Salinity Hazard Map and relevant salinity information are available at the Department of Natural Resources and Mines website or by telephoning 3227 7959.

LINKING VOLUNTEERS WITH FARMERS IN DROUGHT

A new website designed to match volunteers with drought-affected primary producers has been launched by Primary Industries and Rural Communities Minister, Hon Henry Palaszczuk.

Community volunteers will be able to offer their services and skills to Queensland's drought-affected primary producers following the launch of the Drought Volunteer Link website, accessible at www.dpi.qld.gov.au/drought. The website is intended to provide a venue for the community to donate its support, skills and advice via the Internet so that their offers can reach those who need it the most. The Queensland community can help in many ways, from providing transport services, an extra hand on the property or simply a weekend away for the family.

Anyone who is interested in donating their time or skills to the initiative are able to subscribe to Drought Volunteer Link by accessing the website or by contacting the DPI Call Centre on 13 25 23.

INAUGURAL QUEENSLAND ORGANICS CONFERENCE

The Organic Producers Association of Queensland (OPAQ) will present the Inaugural Queensland Organics Conference in Cairns on 31 July - 1 August 2003. More information: Rosemary Burgess on burgess@austarnet.com.au or www.geocities.com/opaq2001/conference.html

MANAGING RIPARIAN LAND AND TREES FOR MULTIPLE USES

This guide provides information to farm managers, advisers, catchment and landcare facilitators on how to gain economic and environmental outcomes from riparian land. The potential uses of riparian land are outlined, together with management principles and practices. Report summary - <http://www.rirdc.gov.au/reports/AFT/02-105sum.html>

The full printed version can be ordered for \$10 + \$4 p&h via email publications@rirdc.gov.au or phone (02) 6272 4819



Want to know more about cooking bushfoods?

In order to maximise our Expo profits, the Bushfood Cafe at this year's Expo is moving into the Main Pavilion.

Already there has been a flurry of activity as volunteers seize the opportunity presented by the rather large bunya nut crop during February. More than one freezer in Maleny now houses bags of boiled and pulped nuts!

However, in order to really make the most of this opportunity, we need ingredients and more helping hands:

... if you are interested in cooking - with or without bushfoods - and want to participate in cookathons

... or have Warrigal greens, lilly pillies, non myrtle (*Backhousia citriodora*), *Backhousia anisata*, or any other bushfoods you can spare for Expo

...or can contribute quantities of pumpkins or sweet potatoes, or basil for bushfood pesto ...

... or can loan us large cake tins, baking trays, mixing bowls, a mix master and plastic storage containers...

... then please contact Elaine Green, the Bushfoods Cafe Coordinator, on 5499 9363.

Endangered Mary River Cod battles drought and fisherman

A concerned Gympie resident recently found a female Mary River Cod carcass on the bank of Six Mile Creek near Gympie. The Cod was discovered with the fillets removed in an area where set lines have previously been found.

This lengthy shaded reach of Six Mile Creek has a number of deep pools ideal for Cod habitat. With low water levels as a result of the drought, movement of Cod along creeks has become restricted, making them an easier target for fisherman.

Landholders in the area where the carcass was found were questioned and appeared to be aware that catching Mary Cod is illegal - subsequently no-one owned up to the catch.

A further reminder that it is illegal to be in possession of Mary River Cod. Heavy penalties apply.

For further enquiries ring Phil Berrill, Waterwatch Coordinator, Mary River Catchment Coordinating Committee, on 07 5482 4766.

ArtisTree

A BARUNG WEED TREE PROJECT



at Woodford

The ArtisTree touring exhibition, "A Fine Line", inspired comment and lively discussion at the recent Woodford Folk Festival. The exhibition was set up as an adjunct to the popular Greenhouse environmental venue and was visited enthusiastically by many festival patrons.

Since the original exhibition at the *From Chainsaw to Fine Furniture* Wood Expo last year, several of the larger pieces have been sold. However, this did not diminish the impact of the recent exhibition as a number of new items were included.

Thank you to those people who generously allowed Barung to use previously acquired artworks. This enabled the display to represent the diversity of uses of camphor timber and products.

An ArtisTree - A Fine Line catalogue has been produced to accompany the exhibition and is available from Barung for \$2.

Update on moth vine

Following the moth vine article in the Range News on 17th January one range resident has reported filling three large fertiliser bags with pods and the removal of the roots of many, many vines.

This is a great response and demonstrates how a little effort can benefit everyone and especially the natural vegetation.

If you haven't checked and removed vines on or adjacent to your property, please do so soon. If not removed the pods will mature, split and the light seeds will spread in the wind.

Remember that if you are unsure about what is growing on your property, you can bring any weed or native vegetation samples into the Barung Nursery for free, positive identification and help with best methods of weed control.



"What a Wonderful Way to Weed!"

"Very encouraging to see some good designs for this wood."

"Wonderful project! Wonderful result!"

"Beautiful signpost for the Future!"

"Fantastic! Creative and inspiring with a subtle and far reaching philosophy!"



New books to borrow at Barung

Information Kit - Land Protection
[Pest & Stock Route Management Act 2002]
N.R. & M. 206-690
Planted Forestry Information Kit Southern Queensland, Greening Australia 400-190
Making Farm Forestry Pay,
Agroforestry Program 403-170
Innovative Products from Australian Native Foods, Forbes-Smith & Paton 803-080
Environmental Management, Local Govt.
Training Council Qld. Inc. 807-220
State of the Environment, Caloundra City Council 807-230 - 231
Listening to Landholders,
Queensland Parks & Wildlife Service 807-240
We all use Water,
Australian Water Association 900-072

New reference books

South East Queensland Weed I.D. Kit, Qld. D.P.I.

The Ornamental Garden

Joan Dillon

We're all familiar with corridors in revegetation projects, but who has considered the important role of the ornamental garden in reconnecting fragmented patches of habitat for the wide range of birds, small animals and the insects on which many feed?

The amount of cover at various levels is particularly important for small birds which are so vulnerable when they are forced to cross large open spaces.

Getting together with the neighbours to create connections is a great way to help the wildlife.

These connections start at ground level and work their way up through the various layers.

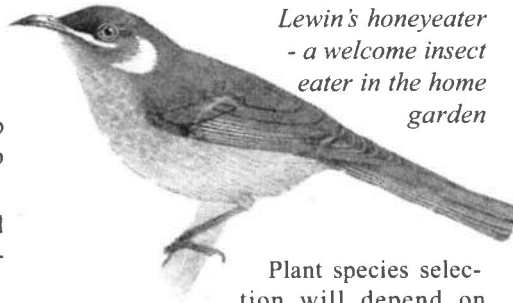
The value of a variety of mulches to protect the soil and reduce moisture loss is well understood but who uses brush mulch, all those small and even large branches and general litter which result from pruning, clearing the lantana etc? This mulch provides homes for small lizards, insects and a whole range of creepy crawlies which in turn provide food for all the insect eaters such as yellow robins. The larger bits of wood are useful perches when checking out opportunities for breakfast. Also, the brush turkeys don't find it quite so easy to move around, a distinct plus!

Ground level is a really important part of the garden, so try to avoid being too tidy, a hangover we have, I suspect, from our mostly European roots. Close to the house, if you must keep things neat, then use a good quality mulch and low shrubs with some decent crooked logs for architectural relief. Any untidy mulch on the outer edges of your garden will help attract the small birds. They can then safely fly into the shrubs and perhaps find a few insects lurking in the logs. You'll even entice the Eastern whip birds out from under the lantana and into the leaf litter under the shrub cover. If you're concerned about snakes lurking out of sight in the mulch or under the shrubs, and it is an important consideration, retain some open space such as lawn or hard landscape material, between the garden and the house.

For most of us, the real fun in gardening starts with the next layer, the low and medium shrubs.

Providing food and protection are the most important factors from the habitat point of view. Protection means moderate to dense foliage and preferably includes some

prickly shrubs. Food can mean fruit, nectar, seeds and insects, and it's the variety which is important. Have you noticed the common Lewin honeyeater in particular, checking out the backs of leaves for tasty morsels? The Lewin honeyeater is a 'leaf gleaner', a delightful term, providing free biological control of leaf eating insects. What more could one ask?



Lewin's honeyeater
- a welcome insect
eater in the home
garden

Plant species selection will depend on many factors such as soil type, available moisture, aspect, wind, frost and so on, and Barung can certainly provide useful advice.

There's quite a range of low and moderately low shrubs suited to our area. Some Callistemons (the bottlebrushes) which flower sporadically through the year are better than the nectar producers which flower spectacularly once or twice a year. The small and medium honeyeaters that also eat insects, tend to hang around if there's a constant and varied food supply, which is better for their health. Other low shrubs are found in the pea family.

There are also genuine groundcovers like Scaevola with blue or white flowers, Goodenia and Hibbertia with yellow flowers, variously coloured prostrate members of the daisy family and the lovely forest Lobelia for shaded places.

Mat rushes (Lomandra), sedges for moist spots, some good native grasses to provide seed, native flax and local gingers will introduce a structurally different element.

In the next layer, some of the beautiful *Austromyrtus* species provide new growth in various shades of red, pretty white flowers, and berries as an added bonus. Like the bottlebrushes, these can be tip pruned to keep them bushy. The popular Midyim, with its tasty edible fruit, is a low sprawling member of the genus.

The important thing is to design the garden for habitat and connections as well as for form and colour.

Our local plants provide plenty of scope and the birds will love you for it.

Illustration from The Slater Field Guide to Australian Birds, by P P & R Slater, published by Landdowne Publishing P/L.

Can you help?

To assess and begin to address the adverse effects of the current drought on our underground water supplies, some Barung members will receive an insert on underground water in this newsletter.

If you are one of these people and you have a bore, please take the time to fill out the questionnaire and return it to Barung.

There is an urgent need to establish a 'real picture' of what is happening to this valuable resource in our area.

If we can pool landholder data now with the little that is held in records, a base line set of data can be established for the future.

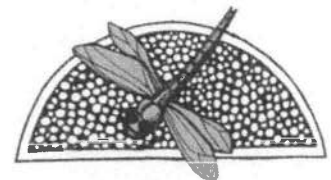
Please contact: Maroochy Mooloolah Catchment Coordinating Association on 5476 4777 or Barung Landcare on 5495 3151 if you can help in this community project.

Another Frog ID Day

Keep your eye on The Range News
for the Frog ID Workshop and Walk
in March.

Montville Mist

Springwater



Joseph McGladrigan

ABN 79 141 915 619

Ph: 07 5442 9411

Mobile: 0408 522 585

MS 956 Narrows Road
Montville QLD 4560

Email: montvillemist@hotmail.com

"Bottled at the Source"

NURSERY NOTES

Russell Botterell

Happy New Year to all. I hope it was safe and prosperous for everyone.

Barung nursery sure has benefited from the spasmodic weather we've had from December to February. The nursery racks are the fullest they've been for a long time with a great range of species available at the moment.

One thing the drought has encouraged which we haven't seen for a while, is mass flowering and fruiting of many species. The retail area is looking really lush with over 150 species available, and the greenhouse is so full that we have run out of bench space and are having to use the floor for growing on tubestock.

The shortage of production area is a great concern if we are to keep up with demand. It will be even more critical if it rains and people start planting trees in earnest.

The small area in the nursery that has potential as a full sun growing-on space requires some minor earthworks. If you can help with a small excavator we would be ecstatic to hear from you, especially if you are a plant operator (no pun intended) who needs some trees.

It's great to see people bringing in seed and specimens for identification. This is a major bonus as it not only supplies us with seed and potential seed sources, but also keeps us on our toes with our plant ID skills.

There is a lot of seed around at the moment so keep your eyes open. Please give us a call if you see a tree with fruit or flowers. It might be a species we really need.

A great big thankyou is in order for Elizabeth Verreyt, Daryl Reinke and Craig Hosmer, Jeanette Nobes and all the other generous people who have supplied Barung with local seed over the past few months. Barung Nursery owes its success to people like these.

To celebrate National Wetland week we promoted all sorts of wetland plants from sedges through to the largest trees in the wetland ecosystems. Come and check out our stocked-up water feature. Wetlands really are a vital part of our environment so let's think about giving them a hand.

Check out our new nursery stock list inside this newsletter.

We have been procrastinating about this for far too long. Thanks to the artistic flair and computer skills of one of Barung's star volunteers, Martin Fenton, it has now become a reality. We hope it is helpful to all our members and potential customers. Please remember it is the prototype, so if we can improve it, please share your ideas. All feedback is graciously accepted.

Remember, the Nursery is open every Saturday from 9am to 12 noon for all those members who can't visit during the week. Drop in and enjoy the beautiful serenity and greenness of Barung Nursery - you never know what you might find.



Rob and Samantha Outridge
Supermarket

* FRUIT & VEGETABLES * DELICATESSEN * MEAT *
* HOME DELIVERY SERVICE * 7 EFTPOS LANES *

26 Maple Street, Maleny

Phone: (07) 5494 2257 Fax: (07) 5494 2767

Introducing Barung Nursery's newest team member

Her name is Cali Salzmänn.

Cali has gained a traineeship with us to complete her Certificate 3 in Horticulture over the next 2 years. During that period we hope to train Cali in all aspects of Horticultural production and Land-care issues but mainly focussing on the improvement and promotion of the Barung Nursery retail outlet.

Cali is enthusiastic and energetic with a very friendly personality and is eager to immerse herself in the Barung lifestyle.

Initially she will be faced with the hugely daunting task of familiarising herself with all the different plants and their strange habits, one which we are all constantly faced with, but hopefully with time she will be dazzling customers with her botanical babble (relax - we'll teach her common names as well).

So next time you're in the nursery, don't be confused.

It's not Russell or Nik acting all feminine, It's probably Cali, so be sure to say hi and ask some really tough plant questions just to make her feel welcome.

PLANT PROFILE

Spencer Shaw

Velvet Leaf

Callicarpa pedunculata

Family: Verbenaceae



The Velvet Leaf is a fast growing, local rainforest edge plant that has suffered at the hands (or is that the leaves) of its introduced cousin Lantana. Lantana is the dominating shrub/vine in our remaining rainforest edges and has displaced many species including *C. pedunculata*.

Although mostly a sparse and straggly shrub in its natural habitat, *C. pedunculata* is another one of those hidden treasures that thrives when planted in our garden and given ample sunlight, nutrients and moisture.

The leaves are velvety to the touch and can develop a silvery sheen in higher light levels. In full sun it will become a very bushy shrub around the two metre mark, in part shade it will be an open shrub that may ramble amongst its neighbours.

The flowers are small and pink, and appear in clusters which can be very showy in a sunnier situation.

The fruit are small purple berries, also in clusters, and look great against the velvety foliage.

Do yourself a favour, your garden just isn't complete without one!

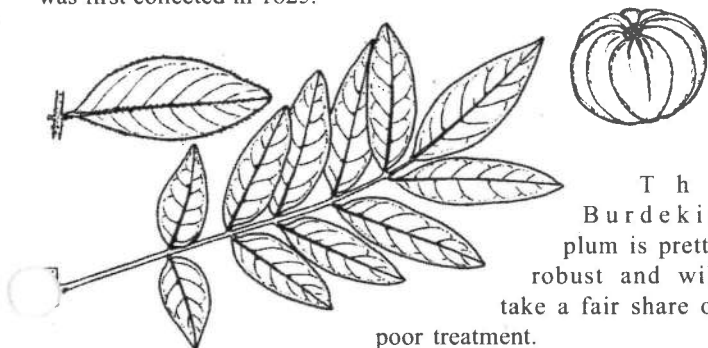
FOAM BOXES
WANTED URGENTLY
for the nursery

LOCAL WILD & EDIBLE Bernard Murowski

Burdekin Plum (*Pleiogynium timorense*)

The Burdekin plum (*Pleiogynium timorense*) is a relative of the mango and cashew and occurs from the coastal regions of SE Queensland to North Queensland and beyond.

The botanical name *Pleiogynium* is from the Greek *pleion*, meaning many and, *gyn*, female or woman, referring to the many stigmas of the flowers. *Timorense* is from Timor where the species was first collected in 1825.



The Burdekin plum is pretty robust and will take a fair share of poor treatment.

It likes a well-drained soil and even grows in sand dunes, so sandy soil is an acceptable medium. Burdekin plum will survive dry periods and will tolerate light frosts. It is fairly slow growing at first but this growth rate will increase. It will reach 20 m in a rainforest situation but in cultivation will usually remain around 6-10 m.

The Burdekin plum can have an imposing form and makes an excellent specimen tree. The wood from the tree is regarded by some wood turners as one of the best of our native timbers.

The seeds germinate readily (soak in water for 24 hours) although they can sometimes be a bit erratic. Cuttings are also successful. Plants will begin fruiting in around 7-8 years if grown from seed, with plants grown from cuttings probably fruiting earlier.

Burdekin plums are up to 40 mm in diameter with the colour varying from red to purple to black. The ribbed sides make the fruit look like little pumpkins.

The flesh is usually purple although some fruit have a white flesh. The fruit have a relatively thin layer of flesh that is very astringent when they have just fallen from the tree or have just been picked. Fresh fruit need to be stored for a week or two to ripen thoroughly before they are palatable. The taste is like a tart plum. The white-fleshed variety tends to be less acidic than the purple variety but with a less intense flavour.

The fruit is traditionally used for tangy jams and jellies (jam is a preserve of fruit boiled with sugar, while jelly is fruit juice boiled with sugar). It is also suitable for sauces for meats and desserts such as crepes, and as a filling for pastries such as Burdekin plum turnovers and pies. For those who like a 'drop' the fruits can also be made into wine.

Illustration from - Trees & Shrubs in Rainforests of New South Wales & Southern Queensland by Williams, Harden & McDonald, published by University of New England

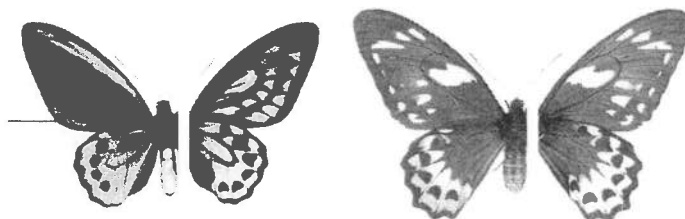
**Want to borrow the Sidewinder??
Woody weed problems??**

Ring the office and put your name on the list
& we will let you know when the next training session is.

Training run on demand now, so let us know!

BUTTERFLIES OF THE RANGE Bob Miller

Richmond Birdwing (*Ornithoptera richmondia*)



Although I have written about this magnificent insect previously, I feel that it is worth another shot as it is almost the "icon" butterfly for this region.

Previously listed as "threatened", the public response in terms of replanting to restore habitat has been enormous.

It can be found on the wing mainly during the months of September to May, and to see it for the first time is a very memorable experience.

The size alone is enough to leave a lot of people in awe. It is one of the largest butterflies to be found in Southeast Queensland, with a wingspan of up to 115mm.

The wingspan of the male is approximately 105mm. The male is iridescent green on the upper wings, with a large patch of black on the forewing and up to four black spots on the hindwing.

The underside is slightly more spectacular. Once again the main colour is iridescent green, but the hindwings have an iridescent gold band running around the outer edge. A series of black lines and spots complete the wing patterns. If that isn't enough, the body of this insect is velvety black with a bright red patch on either side. This is contrasted by a bright yellow abdomen!

The female, although not as spectacular in colour, is just as magnificent in flight with a wingspan of approximately 115mm. The wings are brown with cream markings, with a yellowish band on the outer edge of the hindwings on both the upper and undersides. The body is a dark caramel colour with those distinct red patches on the thorax.

Eggs are laid singly on the underside of the leaves, mostly on the new growth.

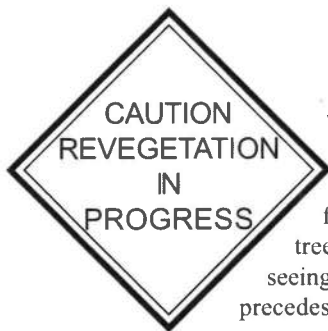
Larvae are black on emergence, turning to caramel then maroon. Later they turn either a blackish-brown or brownish-gray toward the final instars. They have rows of non-irritating spines, all except four which are the same colour as the body. These four are yellow to white.

Pupae are approximately 40mm long and are green with yellow patches on the back. They are always found suspended by the tail with a central silken girdle in a head-up attitude.

The only foodplants for this butterfly are *Pararistolochia laheyana* and *Pararistolochia praevensa*. The latter is the main plant in the Maleny area and can be obtained from Barung Landcare.

Further information can be obtained by reading *Butterflies of Australia* by Michael F. Braby, 2000.

Illustrations from Butterflies of Australia, by Michael F. Braby, published by CSIRO Publ'g.



Hot tips Alan Wynn

With January the driest on record for the Range (and many other places) I thought it might be useful to write some tips to give your trees a better than average chance of seeing out the hot dry weather that often precedes "the wet".

This reminds me of a conversation I overheard recently where someone was asked "When is it going to rain?" The reply was simply "I don't know but we're one day closer". Sounds like a good philosophy to me.

Probably the simplest and cheapest thing you can do for plant stock before planting is to pre-soak them in a bucket of water. This ensures that the root ball is thoroughly saturated, and will make the plant easier to remove from the pot. This means less damage to fragile root systems. It is also a convenient way of carrying trees round the site.

Resist the temptation to lay tube stock out before planting as the black pot heats the root ball very rapidly, effectively cooking the root system.

A couple of litres of water poured into each hole before planting as well as watering after planting, will help reduce soil temperature and transplant shock.

Mulch is essential to provide an insulating mat for the soil, mediating soil temperatures and reducing moisture loss. If your site and budget allow, blanket mulching is very effective. Otherwise, one metre diameter circles of mulch around each plant is beneficial.

With some forward planning, spreading mulch a month or two before you plant results in wonderfully moist soil with good aeration and worm activity. For best results mulch should be at least 100 mm thick and away from the stem of the plant.

Keep in mind that light coloured mulches have high reflectivity and may lead to burning of young stems and leaves during periods of intense heat. Mulch may also prevent moisture from light rainfalls reaching the soil around the plant.

Several products are available to give your young plants an even better chance of surviving until the next rainfall. Anti-transpirant sprays (eg Envy) reduces water loss from the leaves thus reducing transplant shock and helping the plant "settle-in". Water storage gels or crystals (eg Alcosorb or Rainsaver) hold water in the root zone for an extended period of time.

Leaf pruning involves cutting or tearing off a portion (up to half) of each leaf and can have the same effect as the anti-transpirant though this is much more labour intensive.

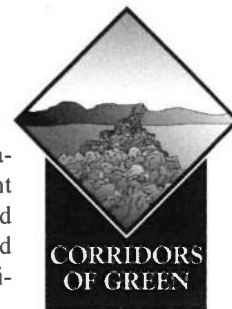
Finally before you head out into the blazing sun to plant the future's forests don't forget to check the fridge to make sure you have enough of your favourite cold beverage for afterwards. I'll have a Guinness thanks.

**HAVE YOU HEARD ABOUT THE
the Barung DIRTY WEEKENDERS??**
they get down and dirty with Alan Wynn once a month
weeding & planting on sites round town.
Learn tree & weed ID, reveg/regen techniques.

Community Spirit along the creek

Irene Keton

In September last year residents of Tama and Palm Streets held the first tree plant along their local creek. The area was weeded of lantana, mistweed, desmodium and impatiens, and 250 trees were planted, fertilized, mulched and watered.



The tree plant was the first of a series planned by these Maleny town residents to clean up the creeks in the catchment system encircled by Palm and Tamarind Streets and North Maleny Road. It was organized and supported by local residents, the Lake Baroon Catchment Care Group (LBCCG), Barung Landcare, and the Mary River Catchment Care Committee (MRCCC).

Two creeks (eastern and northern) join on a property at the end of Palm Street, and the origins of these creeks are contained in this important sub-catchment. The creek flows into Bridge Creek and on into Lake Baroon. As such it has high priority in the Lake Baroon Catchment System.

Beginning at the spring that is the source of the creek and working gradually downstream, the residents intend to help and support each other in the otherwise overwhelming task of restoring and maintaining the creeks, while enjoying some fun social gatherings.

Tree planting, weeding and maintenance working bees happened monthly up to Christmas, and the first maintenance day for 2003 will be on Saturday, March 1.

The aim of this mini-catchment project is to work from the source downwards to control weeds, revegetate and establish wildlife corridors. Cleaning up the headwaters means fewer weed seeds, and a reduction in nutrients and soils in the waterway downstream. Revegetation work has already begun along Bridge Creek under the Barung's Corridors of Green project with Marc Russell, the Maleny Credit Union, and Lake Baroon Catchment Care Group. It has been suggested that as the project progresses it be used as a teaching model for field days, etc.

It is wonderful to see what can be achieved when a team of people tackle these tasks. Working together in a great community effort is a perfect antidote to the global chaos.

Other residents are planning a creek reclamation project at the end of the Maleny Showgrounds, and residents everywhere are encouraged to start their own creek or roadside restoration group. Working this way is fun and it gives a great sense of achievement and community connection.



Rainforest Rescue

Last call to save Daintree

Beautiful one day.

Gone the next.

Will nature lovers stand by
and watch a national icon
on its final descent?

We're about to find out.

Words Julie Olsen

Without a second to lose, excited tourists press their camera lenses up against the bus window to get that allusive shot. If it's what they're hoping for, this could be their closest, most exciting encounter yet.

It's much bigger than expected - a great hairy-looking creature nearly two metres tall, helmeted, with blue and red 'war paint' splashed across its long neck. Massive claws at the end of its short stout legs are sharp enough to disembowel the largest of predators.

But as road kill, the cassowary's marvelous adaptations are of little use.

Nearly ten years ago, just 54 of these large, flightless birds were recorded for the whole of the Daintree region. Just like the great Moas of New Zealand, they could soon disappear forever. Their demise threatens the long term viability of a host of large seeded plant species.

According to Dr Tony Parkes, Chairman of Rainforest Rescue, the critical habitat of the Cassowary is being devastated at an alarming rate.

"Two-thirds of the tropical rainforest extending up the coast from the Daintree River to Cape Tribulation is freehold land," said Dr Parkes.

"These privately-owned, one hectare blocks are of immense conservation value yet there are no laws or regulations to prevent clearing."

"Developers began subdividing the lowland rainforest in the 1980s, after the land was rezoned by Council."

With the road to Cape Tribulation now bituminised, settlement of the privately owned allotments within the Daintree is escalating. Twenty allotments were developed for rural residential housing last year.

Roads slice through the home ranges of the cassowaries and with large areas of habitat continuing to be cleared for settle-



ment or lost to weeds, the handful of surviving birds are forced to dodge cars, dogs and aggressive feral pigs to access a dwindling food supply.

"Weed invasion is a real worry," says biologist Tim Low, author of *Feral Future* and *The New Nature*.

"Pond apple *Annonona glabra* - one of Australia's 20 worst weeds - are sprouting behind the beach, along with exotic coconuts."

"Cultivated plants escaping from gardens into coastal forests is a nightmare prospect, especially when some landholders are growing weird tropical fruits, rare palms and unusual permaculture plants."

"The result is a very wide variety of potential weeds that we don't know much about."

Mr Low predicts a continued trend of piecemeal destruction and weed invasion if areas are not set aside for conservation.

Weeds pose a serious threat to the Daintree rainforest which, until recently, has survived as an unbroken chain stream of evolution since the appearance of the world's first flowering plants.

"These forests are home to 13 of the 19 primitive plant families," says Dr Julia Playford, Director of the Conservation Sciences Unit with the Queensland Environmental Protection Agency.

"Ten of these are found on private land from the Daintree River to Cape Tribulation."

Given her special interest in plant evolution and genetics, Dr Playford's concern for the future of the privately owned forest comes as no surprise.

Over 100 rare and threatened plant species are found in the area. Forty-three occur on freehold land in the Cooper Creek area alone and 12 have not been found in any

National Park areas.

The Cow Bay, Bailey's Creek, Coppers Creek area is a significant tract of Cassowary habitat. It is also vital habitat for the primitive Musky Rat-kangaroo, the rare Bennett's Tree Kangaroo, endangered Spotted-tailed Quoll, and a myriad of smaller creatures little known to science.

"Look out at night for all the gigantic white-tailed rats," says Tim Low, whose love of native species is only equaled by his passion to put a stop to invasive weeds.

"Also look for fig parrots and bumpy satinash which produces big white and golden flowers right down the trunk to ground level, providing nectar for pygmy possums at night."

For tourists, the Daintree is the only place in Australia that serves up World Heritage rainforest and the Great Barrier Reef together. Some call it the heart and soul of the Wet Tropics.

Whether bush walking or wildlife spotting, its rich, tropical rainforests give nature lovers from all walks of life a taste of 'ecology in action'.

But according to scientists, it won't take much to unravel the intricate web of the Daintree rainforest ecosystem. The loss of even one species to extinction could have a devastating result.

"Without cassowaries, over 100 native rainforest plants are not able to regenerate as they are the only bird in the region capable of swallowing the large fruits whole," said Dr Playford.

Eager to act before it is too late, Rainforest Rescue is raising funds to buy back the privately owned blocks of rainforest.

The Daintree Rainforest Foundation has already purchased four properties in two years. Protected forever, and to be declared a Nature Refuge, these rescued areas are being managed for conservation values and will, with the purchase of two more properties form a corridor for local Cassowaries.

"Allotments sell for between \$20,000 and \$35,000, which makes them realistic and affordable," said Dr Parkes from Rainforest Rescue. "A donation of \$20 buys back approximately 10 square meters," he said.

Rainforest Rescue is a national, not for profit organisation committed to saving our rainforests for current and future generations. To make a donation to the Daintree Buy Back and Protect Forever Campaign, write to Rainforest Rescue, PO Box 102 Toowong Qld 4066, email info@rainforestrescue.org.au or visit www.rainforestrescue.com

On and Off Farm Water Quality Monitoring

John Muir

An on and off farm water quality monitoring trial programme in the Maroochy River catchment has recently been initiated by the Sunshine Coast Sub Tropical Fruit Growers' Association (SCSTFGA) and Maroochy Waterwatch.

This exciting and innovative collaboration is being facilitated by John Muir, Barung / Australian Centre for International Agricultural Research (ACIAR) Project Officer, and is supported by the DPI Horticulture Research Station in Nambour.

Six farms and the DPI Research Station will be monitored for nine months. The program is being funded jointly by the Natural Heritage Trust (NHT) Envirofund and the Maroochy Shire Council.



New water quality monitoring equipment at Maroochy Horticulture Research Station Nambour for use in testing on farm nutrients

The program will conduct regular rainfall-related tests. Parameters for monitoring include pH, conductivity/salinity, dissolved oxygen, temperature and turbidity, plus nitrogen and phosphorous.

The results will assist landholders and farmers to develop their own Environmental Management Systems (EMS). Having more accurate data will also contribute to catchment modelling.

Maroochy Waterwatch is a community water quality monitoring programme which has been collecting data on the Maroochy River system since 1994. Quality assurance assistance given by the Environmental Protection Agency ensures data is widely accepted.

Susie Chapman, co-ordinator of Maroochy Waterwatch since 1996, considers this project to be one of the most exciting developments in genuine collaborative catchment management to have happened in the Maroochy area.

"We are clearly entering a new era when farmers are willingly involving other community members to assist them in their development of EMSs, and this endeavour is being financially supported by the Maroochy Shire Council," Susie said.

"Through Maroochy Landcare we are also working in closely with the EMS developments on most other farming systems in the catchment, primarily cane, ginger, grazing and citrus."

"It has taken many years of hard work and faith from a lot of players to achieve these partnerships," Susie said. "It demonstrates the Maroochy community has developed a maturity in its ability to empathise, negotiate and innovate toward a sustainable future for primary industry. And through all our negotiations with the SCSTFGA, I have nothing but absolute praise for the open-mindedness and enthusiasm of the members, of course well tempered with pragmatism."

WEEDS WEEDS WEEDS WEEDS

Dodder - is this a weed?

Lin Fairlie

This unusual parasitic plant is making an appearance in the Blackall Range area. Two distinct genera occur in this area: *Cassutha* has 3 native species and *Ciscuta* has 2 introduced species and 4 native species.

Dodder is also quite common in coastal vegetation.

The special features are the yellow to pale brown scrambling threads on which



there are clusters of small, whitish, round seedpods (up to 4 mm width), containing the small seeds. A complete absence of true leaves is another feature of this plant.

The seed germinates on the ground then searches for a supporting host plant. It obtains nutrients through sucker-like structures wherever the twining threads contact the host plant. After this, it does not need any connection with the soil because it obtains all nutrient and water requirements from its host.

The mass of twining threads can overwhelm and kill the host. They do this by scrambling across the top of the host, flowering and seeding without contact with the ground. This is an unusual situation because parasites do not usually kill their host.

Fire will destroy Dodder, which explains why coastal vegetation is not completely covered by these twining, spreading threads.

On the Range, Dodder appears to prefer softer stemmed plants (easier to attach suckers) and has been found in swampy areas and some revegetation sites.

Dodder is a pest of some crops, for example, Lucerne. Mowing followed by burning is the best control method. However, this is not possible in aquatic or reveg areas.

I am currently 'treating' an area by first picking off all the seed pods and bagging these. I then remove any branch of the host plant that has the obvious yellow Dodder threads. The threads die when the removed branch dies. Burning or bagging the pickings for rubbish collection is the final stage of treatment. Use of any herbicide will kill Dodder but could also damage the host.

So is Dodder a weed? A common definition of a weed is 'a plant growing out of place'. Dodder could be considered to have weed qualities but some native species and have been here in vegetative partnerships for much longer than us.

Potential problems are caused by all species, however, the introduced species are more common.

Bring specimens into the Barung Nursery for identification if you are think you have a potential Dodder problem.



Illustrations by Lin Fairlie

Coffee as a Weed

Des Harries

For the past decade I have kept my trial planting of coffee under critical observation. It impressed me over this period that the only seed dispersal mechanism evident was that of gravity. It is a winter ripening crop, and the ripe fruit is attractive to some birds. However in my coffee plantation only the currawong has made much of it. I have been surprised that the whole fruit is not ingested by such a large bird, but only the flesh. The clean seed is dropped at the point where the fruit is picked from the bush.

In December last year Marc Russell advised me of some occurrences in the Maleny area where coffee has established itself in the wild, effectively becoming a weed within the understorey of rainforest remnants.

I found observing this species on these sites was interesting because the plant is well adapted to these low light conditions and also to the low soil moisture conditions at the time. However these plants, some five years old by my estimate, and up to three metres in height, did not appear to have borne fruit. Nor was there any evidence of flower buds which one would expect at that time of year. I suspect that the light levels have been too low for this.

As I was leaving one of these "infestations" I think I discovered the agency responsible - a resident brush turkey. Someone in the immediate neighbourhood must have a coffee bush growing as an ornamental, and this has been harvested by this bird. A rain of clean undigested coffee seed has descended to the forest floor from its habitual perches in this remnant rainforest stand, hence the resulting thicket of coffee seedlings.

I do not wish to condone a weed, but coffee as such is rather benign. It does not bear thorns, it is not poisonous, and it does not seriously displace native plants. It is also easily removed. What it has done in this case is to provide a food source for a bird whose natural habitat has been largely destroyed.

Giant Rat's Tail found in sugar cane

According to "Mulga Line", a DPI Newsletter out of Charleville, farmers who have been feeding sugar cane as drought fodder, should be conscious of the danger of importing giant rat's tail grass.

Many landholders in our region use cane mulch instead of mulch hay. Weed seed spread in mulch hay has always presented a problem, and now perhaps, the same may be true for cane mulch.

Sugar cane mulch can contain giant rat's tail (GRT) seeds. Check your mulch storage areas after rain for tufted grasses that look unfamiliar and keep a careful eye on areas where the cane mulch was spread.

The mature grass tussocks are rarely killed by fire and fire can, in fact, promote seed production. GRT is drought resistant and infestations increase following drought, overgrazing and pasture disturbance, especially where bare soil is created.

Control of GRT needs to be approached strategically depending on individual situations. Seed may be viable in the soil for up to 10 years, and spraying with herbicides may compound the problem rather than solving it.


If you suspect that you have GRT on your property, ring your local council weed officer to come and identify on site. Transport of seed for identification purposes is not encouraged.

So it is much better to find it early.

One way to identify GRT is the "leaf test". GRT leaves are very strong and can be twisted in your fingers 30 times before breaking compared to native grasses that will break after 2 or 3 turns.

Welcome rain signals the lifting of water restrictions

Council is pleased to advise that water restrictions in Maroochy Shire will be lifted from 25 February 2003.



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OUR WATER

Water Storages

Kym Stanton

Storage for water

The climate of Australia is characterised by extremes. In addition to significant seasonal variations, record floods interrupt record droughts at irregular, unpredictable intervals so that the availability of water is unevenly distributed both in location and time. Building water storages has been the traditional strategy to cope with this uncertainty. As well as providing water for irrigation, dams are the source of water for most of our towns and cities.

There are several types of water storages.

A dam is usually a very large structure built across a valley to create an artificial lake that fills the lower part of the valley. Dams have a spillway to discharge large flood flows so that water does not flow over the dam wall, causing it to breach. Dams that are constructed 'off-stream' require a spillway except when built as ring tanks or turkey's nests' as they are sometimes called. Ring tanks are filled by pumping water into them from the river at times of high flow (water harvesting), so there is no need for a spillway.

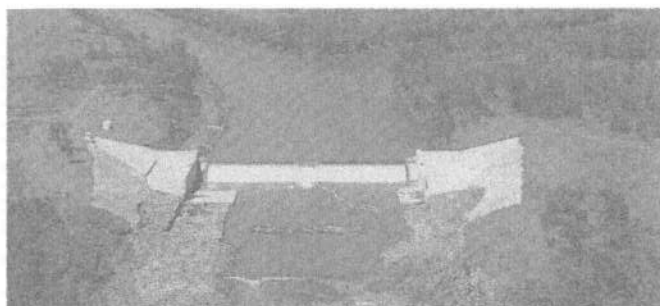


Fairbairn Dam stores water for irrigation and for the town supply of Emerald.



A ring tank at Doctors Creek in the Condamine Balonne is used to harvest water in times of high flow.

A weir is a smaller structure that forms a barrier across a river or creek so that water collects behind it. Usually the water does not flood outside the natural banks of the waterway. Weirs do not have spillways - water flows over the full crest of the weir. Weirs can be 'drowned out' meaning that in a big flood the water surface



This is Mirani Weir on the Pioneer River.

is not affected by the weir but flows as though no weir existed.

Most weirs are built to retain a pool of water that can be used for urban water supplies (as with the Maleny town water supply) or irrigation purposes. These are known as regulating weirs. Some weirs, known as stream-gauging weirs, are built merely to enable the flow in the river to be measured.

Weirs are smaller structure than dams. They often operate in conjunction with large storages to regulate flows downstream.

A barrage is a weir constructed in an estuary to prevent tidal salt water from moving up the river. Fresh water collects upstream of the barrage.

Advantages of surface water storages

1. Source of power

The flow of water from dams can be used to generate electricity. There are few hydro-electric dams in Australia compared with countries like New Zealand. Such countries have a more reliable rainfall so their dams can produce a supply of electricity all year round. Some 'pump storage' dams have been built to augment the power supply. Water flows from a high dam into a lower dam during the day to generate electricity when demand is high. It is pumped back up into the upper dam at night when electricity is cheap and demand is low.

2. Flood mitigation

Some dams serve to protect towns and cities from floods. Wivenhoe Dam on the Brisbane River is an example of this. Several major floods have been averted. However, if one flood follows quickly after another, the dam may not be able to accommodate later floods.

3. Recreational opportunities

An attraction of dams is that they provide a body of water for recreational activities. Water sports are popular on many dams. Generally, they are those that have little impact on water quality and include sailboarding, rowing, sailing and fishing. Many fish are unable to breed naturally in dams because they cannot return to the sea to complete their life cycles. Dams are stocked with fish raised in hatcheries to circumvent this problem. Powerboats for water skiing can contaminate water with fuel and oil and are usually not permitted. Where dams that provide drinking water supplies are in protected catchments, no human activity is permitted in the catchment.

Disadvantages of surface water storages

1. Inundation of agricultural land

Although the adverse downstream environmental impacts of both the dams and the associated flow regulation have, until recently, been overlooked, the impact of the dam itself is more apparent. The land in the valley on either side of the river is invariably the most fertile and populated, so dams are likely to inundate areas of good agricultural land and cause social disruption. This loss needs to be weighed up against the benefits provided by the dam.

2. Barriers to natural flow

The smallest dams and weirs can act as barriers to the movement of fish and other aquatic animals both upstream and downstream. Fish ladders have been constructed at some weirs and dams to enable fish to move upstream to complete their life cycles. As Australian native fish are not very strong swimmers and cannot leap as high as salmon and similar fish, the fish ladders of northern hemisphere design have proved to be of little benefit. More effective devices are now being introduced.



This fish ladder is at Ben Anderson Weir, Bundaberg

Dams and weirs interrupt and retard the flow of water, the transfer of sediments, organic matter and nutrients. They reduce the overall energy of the river as well.

3. Changes to the river's hydrology

The hydrology of a river (its pattern of flow) is its life force, so when changed, its ecology is altered. Water flow maintains the shape and dimensions (morphology) of the river's channels. Changes to the channel morphology may encourage the growth of choking aquatic weeds. There may be loss of habitat and water quality. Reduction of peak flows can reduce the river's connection to its flood plains, which is critical to the health of the system.

4. Changes to the seasonality of flows

The plants and animals (biota) of Australian rivers are adapted to the natural pattern of flow in the rivers - the variable drought and flood patterns that we humans find so difficult to manage. The human demand for water is high in the dry season so water is allowed to flow down the rivers from water storages at this time to provide for our needs. The river therefore has high flows when they are normally low - but when they would normally be high, water is conserved in the dam. When the seasonality of flow in the river is reversed, life cycles of animals in the river may be disrupted. Making the river flow more uniform can favour exotics such as carp in the Murray/Darling system and water hyacinth.

5. Changes to water quality

Artificially regulating the flow of a river directly influences the quality of the water. Riffle zones, the shallow fast flowing parts of the stream (the 'lungs' of the stream) are areas where oxygen mixes into the water and many animals breed and feed. These zones are reduced when there are extended periods of low flows. The edge of the lake, the littoral zone, is another area of high production. If water levels in a dam change too frequently, the biota in the littoral zone is unable to adapt and dies.

6. Increased nutrients

Unlike natural lakes that may be subject to flushing when the river is in flood, dams are rarely flushed. The confined nature of the storage and land use practices in the catchment lead to an accelerated accumulation of nutrients both in the water and in the sediments at the bottom of the dam. This creates favourable conditions for cyanobacteria (blue green algae) blooms. Even dams in protected catchments will be prone to this 'accelerated ageing' or eutrophication effect.

7. Environmental flows

If an animal or plant is to survive and thrive, it needs a healthy environment. Rivers are no exception. To keep rivers in a healthy state we need to define what flows are needed in the river and the timing of those flows. Environmental flows are those needed to maintain in-stream habitat and water quality, channel morphology, floodplains, wetlands and the estuarine areas of the river. In rivers where the flow is regulated by dams and weirs, provision for the

release of water to supply environmental flows must be included in the operation plans for the river.

Up to a point the negative environmental impacts of changing the flow of water in a river system are reversible but if they are allowed to accumulate without taking into consideration their impacts on the whole catchment, they may reach a 'point of no return'. Sustainable management of our waterways presents challenges to both the Government and the community.

Finding a balance

New dam construction is becoming more expensive today because the most productive sites have already been exploited. As the community becomes more aware of the environmental effects of dams and regulated flows, attitudes to the building of new dams are becoming polarised.

The undoubted benefits of dams come at a cost. Previously this cost has been largely ignored and dams have been built with little regard to their cumulative impacts on the environment. These impacts might take some time to show themselves but they come at considerable economic as well as environmental expense, as we are now discovering in the Murray/Darling.

Governments are working to help us make responsible decisions about the management of our waterways. In Queensland, for example, the Government has instigated a Water Resource Plans (WRP) process. This process will form management plans for our catchments to provide more certainty for those who receive allocations of water from the rivers. They will also ensure that environmental flow requirements are met so as to protect and maintain the ecosystems.





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VOLUNTEER NEWS

Now that the school holidays are over and the Christmas chaos has subsided, Barung's wonderful volunteers are reappearing at the Resource Centre. Quite a few new volunteers have been ringing the office to ask if they can be of help.

As always, the potting bench turns into the social hub of the volunteer crew in the nursery, but there are many other areas where volunteers can be of help:

- Angie currently has a volunteer free day in the office on Wednesdays - if you have a day or even half a day and are practical and reliable, give Angie a ring to see if you can help her out;
- Alan Wynn and Marc are always keen to take people out in the field. This is not only a great help on our sites, but also a great way to learn best reveg techniques, tree and weed ID etc.
- With the Expo looming fast, there are a multitude of small jobs that need to be fitted in. Give Mim a ring if you have some time to offer and make sure you fill out the Expo Volunteer Form in this Newsletter.

This is not to say that the nursery doesn't need more vollies - a nurseryman's job is never done as the old saying goes, and Russell is no exception. He always has jobs for those extra hands - again an excellent way to brush up on your Tree ID skills.

Although things at Barung may appear to be under control, it is only thanks to the many pairs of helping hands of our volunteers, that we continue to operate.

Thank you to ...

- ... Will Watson, Suncoast Communications, for generous discount on Barung's new Siemen phones
- ... Terracom Australia for the discounts for Barung's two new phone extensions
- ... Trish Brunton for her donation of 6Mb hard drive
- ... Trish Brunton, Andrew Thornton & Yvonne Richards for donation of vast quantities of bunya nuts
- ... Robert Boog (5494 3052) & Dr John French (5491 1104) for inspecting and treating our latest invasion of white ants
- ... Esta Knudsen & Richard Francis for so deliciously hosting the last Management Committee meeting
- ... Max Smith & Paull Smart for lending the muscle for the major container and nursery clean out late last year
- ... Dave Kirby, Nick Clancy, Claire & Alan Wynn, Marc & Kerry-ann Russell, & Elaine Green for helping to man the ArtisTree Exhibition at Woodford, and to Patrick Green & Joe Brisick for their assistance with setting up and pulling down the exhibition
- ... Lin Fairlie for organising and running the January and February Information Nights at Mary Cairncross Scenic Reserve
- ... all members who have brought seed into the nursery over the past months

Apologies to...

- ... Elaine Grant for giving credit to the wrong Elaine for assisting with newsletter mailout etc. in the last Newsletter

LETTERS

Dear Elaine,

Just a quick email to say how much I enjoy receiving and reading the Barung Landcare News.

I particularly enjoy articles regarding the Mary River cod, farmcare, water issues and Bob Miller's Butterflies of the Range.

I receive numerous newsletters in my role as a Caloundra Councillor and just wanted to let you and your members know how much I enjoy the Barung Newsletter.

Please pass on my congratulations and encouragement for the energy and passion that so many of your members display on an ongoing basis. On behalf of the Sunshine Coast community I'd like to thank you all for the significant contribution you all make to our lifestyle and environmental well being.

Regards and best wishes

Andrew Champion

Councillor Division 4 Caloundra City Council



Dear Mim

I am writing to thank you for your participation in and support for students projects in the Faculty of Business Tourism Practicum course in 2002 and to invite you to join in the Faculty's Business Partnership Network.

Through the participation of companies such as Barung Landcare, our students gain valuable business experience when they conduct practical projects for local Sunshine Coast businesses. It is real life experiences such as these, which help our students develop business skills that will assist them throughout their business careers. We trust that your involvement has been mutually beneficial and worthwhile from your perspective.

Once again thanks for your involvement. It is much appreciated by the Faculty and the University.

Yours faithfully

Professor Deborah Ralston

Dean, Faculty of Business, University of the Sunshine Coast

Dear Ms Coulstock

Greetings from LEAF Foundation, Inc!

We wish to express our deepest gratitude for the time, effort and valuable knowledge you have imparted to us as well as the accomodation you have arranged during our Study Tour in your country Australia last November 1-13, 2002. It was a marvelous and enriching experience for us and had contributed much to our work and individually.

In our wrap-up sessions here in the Philippines together with Cath Cosgrave of Philippine Australia Governance Facility (PAGF) and Mary Johnson of Secretariat for International Landcare (SILC), it is our plan to establish a meaningful partnership with Australian institutions thru projects that will contribute to poverty alleviation and environmental conservation towards building sustainable communities.

Again, thank you and may you have a beautiful New Year!

Sincerely yours

Ruben P Cajigas
Executive Director

FARM FORESTRY NEWS

Farm forestry trial/research site update

The Barung Farm Forestry Sub-committee was delighted with the response to its request for a 1-2 ha site on private land on which to establish a demonstration and research farm forestry plantation in conjunction with Private Forestry Southern Queensland (PFSQ) and Queensland Forestry Research Institute (QFRI).

The response from local landholders indicates the huge interest in farm forestry as an alternate land-use for the region.

All sites have now been visited and shortlisted, and the final decision will be made in the next couple of weeks. Sites were assessed according to aspect, frost likelihood, soil type, and other requirements.

Please contact Mim on 5494 3151 or Ashley Sewell on 5451 2267 or 0407 596 201 if you are interested in knowing more about this project.

Tree Talk Tony Wootton

Hello again, tree people.

In this issue I'd like to review, from an arborist's perspective, the terrible storm that crossed the plateau on Boxing Day 2002.

I've lived on the Range for 12 years and have never seen such devastation wreaked on our tree community. I missed the actual storm but arrived home at 11 pm to find a large coral tree had completely blown over, taken out our power line and was blocking the driveways of two properties.

The next few days spent driving around answering distress calls revealed the extent of the destruction. Most of the trees failed in places where they were structurally flawed such as tight forks and twin leaders, untended old wound sites, points where large suckers were attached, crossing branches, and areas of diseased or decaying timber. Occasionally, the terrifying force of the storm snapped the trunks of apparently sound trees, and uprooted others as if they were garden weeds, revealing decayed root systems.

I'll list the worst affected species starting with the most commonly damaged.

Worst of all was the Coral tree (*Erythrina sp.*), then Liquidamber, Cypress (*Callitris sp.*), Blackwood (*Acacia melanoxylon*), Tea tree (*Melaleuca sp.*), Slash pine (*Pinus sp.*), and the smooth barked Eucalypts.

Among the conclusions I have drawn is that well maintained trees tended to fare better than poorly maintained ones, but were not totally immune from the risk of damage. The fact that many weakened and old trees were destroyed indicates a kind of natural spring clean, if you like.

There was very little damage to property, which is amazing considering the sheer volume of timber that came crashing down, with many trees missing houses and cars by inches.

Once again the overriding message is clear - manage your trees sensibly, practically and well.

Until next time, Touch Trees.

Poison in Paradise or Fruits of Death!

cont'd from p 16

much higher levels of toxins - the toxins that attract the Birdwing in the first place! The butterflies lay their eggs on this vine but the caterpillars soon succumb to the higher levels of toxins.

So far we have mainly discussed (very briefly) the chemical defences of plants against herbivores. The protection of their leaves and stems from the greedy herbivores is understandable, but what about fruit - surely they wouldn't be poisonous when they need to be eaten, to be dispersed?

Birds and mammals are the main fruit dispersers and both lots of animals have quite different digestive systems. Birds are often better seed dispersers because their digestive systems allow seeds to pass through quickly, unharmed. Many birds also appear to have developed tolerances or immunity to fruit toxins, as opposed to many mammals, that are a better guide for us as to what is and isn't edible. Generally we can taste what is all right to eat in regard to fruit, but this is not always the case. Fruits such as those of White Cedar *Melia azederach*, Chain Fruit *Alyxia ruscifolia* or Tie Bush *Wikstroemia indica* don't taste too bad at all from personal experience but apparently are listed as poisonous. Even more insidious is the Finger cherry *Rhodomyrtus macrocarpa* of north Queensland. It is documented as causing blindness when consumed; it is possible a fungus present on the skin of the fruit may cause this injury.

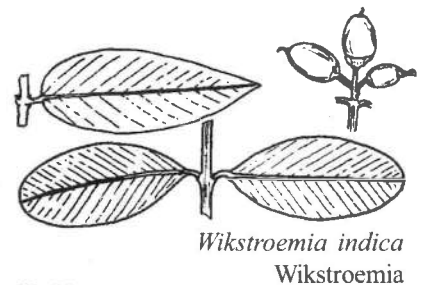
To add more confusion, many fruit that are apparently edible, taste - well lets be honest - awful! The Native Grapes (*Cissus sp.*) are extremely astringent and to my mind are far from edible, but it is likely that birds do not even detect this discomfort and the astringency merely acts to speed the travel of the seed through the birds gut, preventing digestion of the seed.

Before we finish I'd just like to add a final point, and that is that our local forest aren't awash with venom spewing triffids ready to leap upon you when you leave the safety of your exotic gardens. Many exotic plants that sit innocently in your garden also use chemical defences and they too can be a threat to the uninformed.

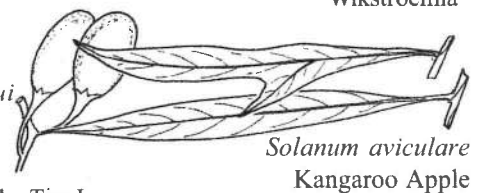
What is paramount, is that we set ourselves the task of learning more about the vegetation and ecosystems of which we are a part. Part of that process starts with what is and what isn't edible. Also when we look further we realise that the chemicals present in plants can have even further repercussions for us, in that what may be toxic at a certain dose, may be medicinal at another, and that opens up a world of possibilities for our future health.

Some Fruits around at the moment not to stick in your mouth!

Alocasia brisbanensis
Alyxia ruscifolia subsp. *ruscifolia*
Clerodendron floribundum
Dendrocnide sp.
Duboisia myoporoides
Hibiscus heterophyllus
Solanum aviculare
Tabernaemontana pandaqui
Wikstroemia indica



Wikstroemia indica
Wikstroemia



Solanum aviculare
Kangaroo Apple

References:

[Wild Food Plants of Australia](#) by Tim Low
[Wild Food in Australia](#) by A.B. & J.W. Cribb
[Butterflies of Australia](#) by Michael F. Braby
[QLD Govt. NRM Fact sheets -Fluoroacetate \(1080\) PA5](#)

Illustration from - [Trees & Shrubs in Rainforests of New South Wales & Southern Queensland](#) by Williams, Harden & McDonald, published by University of New England

Poison in Paradise or Fruits of Death!

Spencer Shaw

What a dramatic headline, thought that might grab your attention! Nothing like a grim headline to bring out the voyeur in us.

Plants - over the millennia have evolved various means to stop us greedy herbivores and omnivores getting too carried away and eating them into oblivion. Some are prickly such as the tendrils of Lawyer cane *Calamus muelleri*, some are hairy such as the fruit of Foam bark *Jagera pseudorhus* some are too tough such as the leaves of *Wilkea macrophylla* and some are... poisonous!

Well actually, most, if not all plants, have developed some form of chemical defence system. Take many of the leafy vegetables we eat such as spinach or silverbeet. Their leaves are laced with oxalic acid, an irritant that is removed when we dispose of the water we cook them in.

Quite often survival comes down to tolerance and adaptation that animals develop to the range of chemicals that plants defend themselves with. 1080 or Sodium fluoroacetate is a chemical commonly used for poisoning feral animals in Australia. It also occurs natu-

rally as a defence chemical in some Australian plants and consequently many of our native herbivores have developed varying degrees of tolerance to it.

One of our beautiful local butterflies, the Richmond Birdwing *Ornithoptera richmondia*, has evolved with its local food plant *Pararistolochia praevenosa*, the Richmond Birdwing Vine. The vine *P. praevenosa* has a powerful chemical arsenal that keeps most other herbivores away, however the Richmond Birdwing has developed a high level of tolerance to these chemicals and its caterpillars can feed on the new growth.

This degree of specialisation by plant and animal has many advantages. For the plant, its toxicity allows only specialist herbivores to feed upon it and for the animal, if you can adapt and specialise in eating highly toxic plants you often have very little competition.

The specialist adaptations of the Richmond Birdwing however have left it very vulnerable. The loss of its specific food plant to habitat clearance has been a major blow, but on a more sinister level the introduction of the South American vine species *Aristolochia elegans*, the Dutchman's Pipe, has been its greatest threat. *A. elegans* is related to our local Birdwing food plants but contains

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