Newsletter Dry Season July - September 2003

Opening of TREAT Visitor Centre

By Barb Lanskey

The new building at Lake Eacham nursery housing the CTR offices and TREAT Visitor Centre will be officially opened at 10am on 22nd August. It is hoped the Minister for the Environment, Mr Dean Wells, will be available for the occasion, along with various other dignitaries from QPWS, WTMA and Eacham Shire Council. CTR staff and TREAT members will be present from the normal Friday morning working bee. All others are very welcome to attend.

The Visitor Centre focuses on Tropical Rainforest Restoration and tells the story of the Tableland rainforests, from their removal for farming in the past, to their partial restoration today. The display features information on several restoration projects and includes the science and practice of rainforest rehabilitation.

The Visitor Centre will be a wonderful asset for TREAT's work in environmental education and visits are expected from local communities, schools and universities, overseas students and tourists.

Annual General Meeting

On Friday 22nd August, TREAT will hold its AGM at the Yungaburra Community Hall starting at 7pm. This year, Dr Gay Crowley and Dr Stephen Garnett will talk about the endangered Gouldian Finch and Golden-Shouldered Parrot and their special food source, Cockatoo Grass. See the abstracts in this newsletter for further information on these presentations.

All are welcome to attend - it should be a very interesting and enlightening evening. If you can, please bring a plate for supper afterwards.

Subscriptions

TREAT's Treasurer, Col Walsh, reminds members that when they come to vote for the new committee at the forthcoming Annual Meeting, they must be financial. He is happy to recieve the $10 p.a. per family any Friday at the Nursery.

The subscriptions fund the production of the newsletter four times a year. It is edited by Bronwyn Robertson. Our newsletter is a vital means of communication with our members with notices of events to come and records of past field days etc.

Inside this issue

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An inspiring field day on a Tableland farm

By Joan Wright

In June 2003 TREAT members held a field day on the Tableland farm of Anna and Allan Backshall on a glorious sunny day. This field day was a long range follow up to another one, held more than ten years ago. Anna and Allan are long term TREAT members and they access many trees from the Lake Eacham nursery. Their beautiful farm clearly shows evidence of their enthusiasm for tree planting.

On the river, the tributaries, creeks and gullies, the banks have been fenced off from the cattle and plantings of mixed species rainforest trees now stand high and dense. The beautiful landscape with its rolling hills and tree belts is clothed with clean grass land and the cattle obviously benefit from the shade, the available water and the skilled management.

During our first visit, years ago, I remember being shown a problem gully eating further back into the hillside with successive wet seasons. While standing by a beautiful group of rainforest trees at one point in this visit, I asked to see the troublesome gully. 'This is it,' answered Anna and Allan. I was amazed; the transformation was complete.

From the hill top we were shown the course of the Johnstone River from near its source to the vicinity of the Malanda Scrub. It is now planted with trees along almost its complete length, and this great effort has been made by the Backshalls, the Malanda Landcare Association and the Wet Tropics Tree Planting Scheme.

There is a parallel project on Peterson Creek near Yungaburra. TREAT has worked at restoring the banks of the upper creek for the last six years. David Leech's Lower Peterson Creek Landcare group work near Yungaburra (Alloombah Pocket). We all work with financial support from the Australian Government's Natural Heritage Trust, and with the cooperation of the landowners.

Our long term aim is to restore the creek banks of Peterson Creek from end to end, from the Lake Eacham National Park to the Curtain Fig Tree forest and on to Lake Tinaroo. It will be a long job but a great aim!

World Environment Day 2003

By Joan Wright

What did World Environment Day mean in the year 2003 to the Atherton Tableland? I don't know how it was celebrated in any places other than Malanda, where the Environment Centre was a hive of activity for a few sunny hours.

TREAT had a modest stall beside the National Park Volunteers' caravan and as each group of Grade 7 students arrived they were told how trees are vital to the lives of animals and people, and that is the reason for TREAT having 500 tree-planting members.

Afterwards they were introduced to frogs, a splendid python, baby wallabies rescued from road kills, bats, the Wet Tropics Management Authority and other related things, so they gained an impression of some of the living things which share with them the beneficent environment of the Atherton Tableland.

As they moved round the site, the continuity of concern for the environment was shown to them by looking at a flourishing young fig tree with a plaque beside it. It was planted by their fellow students and Tania Simmons in 2000 at another World Environment Day observance.

The next generation is our hope for the future and TREAT's work with children is an important part of our activities. May they grow and sustain a healthy world like our young trees.

Seed Collection Diary

By Peter Dellow

Collection of viable seed material is an obvious first step in the production of healthy native plants used for TREAT/ CTR restoration projects and supply to TREAT members. Record keeping is an important part of the nursery's seed collection program as it provides a management tool that assists in the prioritising of collection efforts and an opportunity to better understand seasonal fruit production in the tropical rainforests of North Queensland. The nursery maintains a collection database which currently contains more than 3000 entries for seed collections across the Wet Tropics bioregion over the past 8 years. This database can be manipulated to generate specific fruit production information based on previous collections. For example, this filtering process may extract a list of species fruiting in Mabi forest (type 5b) during any given month or alternatively, allow us to question when a particular species in Hypsi forest (type 1b) may be ripe and ready for collection. As the database continues to grow so does our capacity to predict when specific species are likely to be ready for collection. In using this approach, the task is performed in a strategic manner and optimises the use of available resources.

In recent months two common rainforest plant families have been conspicuous by their fruit production - Lauraceae (the laurels and walnuts) and Rutaceae (the aspens, maples and euodias). The nursery have collected the following species in the Lauraceae family; *Beilscmiedia bancroftii* (yellow walnut), *Neolitsea dealbata* (grey bollywood), *Endiandra hypotephra* (northern rose walnut), *Cryptocarya mackinnoniana* (rusty laurel), *Cryptocarya hypospodia* (northern laurel) and *Cryptocarya triplinervis* (laurel).

Species collected in the Rutaceae family include; *Melicope rubra* (little euodia), *Melicope elleryana* (butterfly tree), *Acronychia acidula* (lemon aspen), *Halfordia scleroxyla* (jitta), *Euodia xanthoxyloides*, *Flindersia acuminata* (silver silkwood) and *Flindersia pimenteliana* (maple silkwood). It looks like another big season for *Flindersia brayleana* (Queensland maple) with plenty of loaded trees across the Tablelands which look as though the gherkin like pods should start splitting open late August.

Some other interesting collection records include; *Galbulimima belgraveana* (pidgeon berry ash), *Caldcluvia australiense* (rose alder), *Helicia nortoniana* (Norton silky oak), *Ficus superba* (fig), *Acmena divaricata* (cassowary gum), *Syzygium alliiligneum* (onionwood), *Rhus taitensis* (sumac), *Harpullia ramiflora* (claudie tulipwood), *Nauclea orientalis* (Leichardt tree), *Dysoxylum alliaceum* (Cape York cedar), *Mischocarpus exangulatus* (bell fruit tamarind), *Randia fitzalanii* (brown gardenia) and *Canarium vitiense*.

To assist with the nursery's seed collection program, all members who have access to native rainforest seed are encouraged to bring a sample in on Friday mornings for identification. Remember there are permit requirements for certain collections so check with nursery staff first if you are unsure.

Revegetation Coordination Group

The Tableland Revegetation Coordination Group met again on 21st May at Lake Eacham nursery to keep up to date with the various projects individual groups are undertaking.The meetings are proving very fruitful with the exchange of information and ideas, the next meeting is set for 13th August.

Abstracts - Annual General Meeting Presentations

Cockatoo Grass, a keystone species in tropical savannas

Dr Gay Crowley, Botanist, Queensland Parks and Wildlife Service, Cairns

Cockatoo Grass, *Alloteropsis semialata*, is found in tropical savannas of Africa, Asia and Australia. It is the only known plant to have subspecies with both C3 and C4 photosynthetic pathways. A perennial grass, it survives the long dry season by contracting to a highly nutritious, bulbous base that resprouts rapidly after rain. Unlike most perennial grasses, it produces no seed bank, and its seeds must germinate as they fall to the ground early in the wet season. These features make it an important food source for bettongs and granivorous birds, but also highly attractive to introduced cows and pigs. Current studies are assessing the impact of pigs and cattle on Cockatoo Grass, and whether protection from grazing will increase Cockatoo Grass in tropical savannas to the benefit of dependent animals.

Natural history of two Cockatoo Grass predators, Gouldian Finch and Golden-shouldered Parrot

Dr Stephen Garnett, Senior Principal Conservation Officer,
Queensland Parks and Wildlife Service, Cairns

Grass seeds are one of the most abundant food sources available in the tropical savannas through the dry season. Many birds, including the Endangered Gouldian Finch and Golden-shouldered Parrot, take advantage of this surfeit, feeding for only short periods, spending most of the day roosting secure from predators. When the wet season rains germinate fallen seeds, the birds must increase the time spent searching for food, so are more likely to be taken by predators. This period of food-scarcity is finally broken when Cockatoo Grass seeds about six weeks after the first wet season rains. Conservation of Cockatoo Grass forms an important part of the recovery planning for both species.

Hallorans Hill Field Day

By Joan Wright

On the first Saturday in September (September 6th) David Johnson will lead a very interesting geological field day. David was the popular speaker at the last TREAT Christmas party when he talked about the geology of Hallorans Hill in Atherton.

The field day will take us to Hallorans Hill itself where David will describe the geology of the landscape laid out before us in the extensive view from the top of the hill.

However, we shall meet for the field day outside the Hou Wang Temple on Herberton Road in Atherton at 2.00pm. We shall drive first to the Wongabel Quarry and then via Wongabel Forest to Hallorans Hill. At a stop at Wongabel, David will tell us about the extent of the basalt flow which created the Tableland's rich soil.

Those people who would like to finish the field day with a barbecue on Hallorans Hill should bring all they need to eat and drink with them. The Atherton Shire Council has provided free electric barbecues as part of the improvements to the park.

We hope to have a very interesting and friendly afternoon on September 6th. Enquiries may be made to Joan Wright on Ph: 4091 3474.

The Fruit of the Month in Winter

By Tony Irvine

On the Tablelands, the family Rutaceae plays an important role in providing fleshy fruit for cassowaries and fruit pigeons during the winter months when many fleshy fruits are scarce. Examples of winter fruiting Rutaceae are *Acronychia acidula* (Lemon Aspen), *A. aberrans* (Aberrant Aspen), *Acronychia vestita* (Fuzzy Leaf Aspen), *Halfordia scleroxylla* (Jitta) and the fruit for this month *Pitaviaster haplophyllus* (Brown Twig Aspen). Actually when one thinks about it, the commercial, introduced, fleshy-fruited Rutaceae also perform in winter - mandarins, oranges, cumquats, grapefruits and pommeloes.

Pitaviaster haplophyllus (Brown Twig Aspen) is not a very well known tree as it is an understorey tree that does not reach logging sizes and there appear to be no uses of the plant by Aboriginal people. Despite this it can often be encountered frequently in the understorey of Hypsi Forest (1b) and 5a ("Possum forests") which occur on volcanic soils. It also occurs in Mabi forests to a lesser extent probably due to the drier nature of this forest and also in lower numbers in rain forests on soils of granitic and metamorphic origin. Besides growing in rain forests of the Wet Tropics region it also grows in Cape York rain forests.

The fruit is shiny black, ovoid, up to 15 mm long x 12 mm wide, with green flesh and a central single seed that is 6-7 mm in diameter. Flowers are quite small, white in colour and the petals are slightly hairy on both sides. The plant may have two flowerings and fruitings per year.

The simple, opposite, green leaves are dark shiny green above, with a depressed midrib and a single pulvinus swelling occurring where the leaf stalk meets the base of the leaf blade. Oil dots are numerous, visible with a lens or may be seen by naked eye. Crushed leaves have a very strong aromatic smell and one of the most distinctive features is that the leaves occur towards the end of brownish twigs hence the common name "Brown Twig Aspen."

It is often called Yellow Aspen but this name is applied more suitably to *Sarcomelicope simplicifolia*. Its scientific name has also undergone change. Initially in the early 1970's, it was known as *Acronychia haplophylla* and then it's name changed most unsuitably to *Euodia haplophylla* and now recently it has been called *Pitaviaster haplophyllus*.

It has not been used very often by TREAT in our planting programs but it should be as it is an ideal, small tree suitable for planting in both Mabi and Hypsi forest terrains. It is relatively hardy and may show some resistance to frost. The tree is evergreen and can grow to 10 m tall but is usually much smaller. It is quite suitable as a garden screen tree where it initially forms a shrub-like form and can be planted near fence boundaries as its size is not likely to upset neighbours.

Nursery News

By Peter Dellow

Out of the EMU!

After months of internal deliberations the Environmental Protection Agency has resolved the position of the CTR within the Queensland Parks and Wildlife Service. Whilst the nursery used to be part of the now defunct Ecosystem Management Unit or EMU, all staff were pleased to learn the nursery will remain under the leadership of Dr Stephen Garnett in the newly formed Conservation Planning Unit based in Cairns.

This decision will create negligible change to the relationship between TREAT and the nursery and will ensure continuation of all services members are familiar with. It is encouraging to know the Agency recognises the value of TREAT and their collective role in complementing service delivery within the Conservation Planning Unit. All members should take credit for this outcome - congratulations!

Staff News

Now that the restructure is complete, a temporary CTR management team has been appointed through to the end of September to ensure all planning activities and preparations for next year are satisfied. In a break from bureaucratic protocol, commonsense has prevailed on this occasion with the promotion of Peter Dellow, Nick Stevens and Peter Snodgrass to the Ranger 006, Ranger 005 and Ranger 004 positions respectively. Ryan Wolfe will maintain Ranger 003 responsibilities for the same period.

Members are encouraged to utilise the experience and skills of all staff as Spring quickly approaches. Despite loosing Clare Cardwell from the CTR ranks, the Agency has recognised her abilities by appointment into a permanent Ranger 002 position based under Mark Lawson at Lake Eacham. Congratulations to Clare and best wishes with her new Ranger duties.

Farewell to Gottingen's finest!

If during the recent planting season you overheard "who are those two industrious blokes"? - invariably the response "oh that's Sven and Ralph" was given. The CTR was fortunate enough to host two German students Sven Kowalski and Ralph Schultheis during their three month practical training between March and May this year. Both are Forest Engineer students from Gottingen University in Germany who ventured south to learn and experience community based nature conservation. Arriving in the middle of a record planting season provided no shortage of hands on opportunities in fact, their reputation as augermongers was cemented on their first job at Cherry Tree Ck.

This was a standard all staff and members grew to expect from Ralph and Sven, whether it be in the field, nursery or advancing their directed research project on insect predation of fig seed.

Hosting international students provides mutual gain through a better understanding of conservation issues associated with different countries. As Sven explained, one of the greatest threats to native forests in Germany are deer, ironically a native species themselves. Expansion of agricultural area has generated increases in the deer population which often seek refuge in forest patches. Being a herbivore, exploding numbers of deer need to supplement their diet with native vegetation from within forest refuges. This process is having a deleterious effect on the floristic and structural diversity of native forests primarily through herbivory of natural regeneration. Perhaps this example should be noted given feral deer have been seen through the Palmerston and elsewhere in the Wet Tropics.

Show and Tell

Friday morning smoko breaks in the nursery have taken on a whole new meaning with the recent introduction of 'Show and Tell' sessions which aim to provide volunteers and staff with an interactive opportunity to learn more about flora and fauna of the Wet Tropics and adjacent environs. With valuable contributions from Joan Wright, Kay Coomber and Allan Gillanders to name a few, show and tell has been warmly received and never fails to raise a laugh or two - even if it is at the expense of someone who will remain anonymous. All members are encouraged to bring in weird and wonderful specimens for identification and discussion.

Mabi Forest

The Mabi Forest Working Group, which includes Tony Irvine and Joan Wright as TREAT representatives, is making an application for a government grant to compile a Recovery Plan for the Forest.

Mabi Forest (Web & Tracey Type 5b) was named by Tony Irvine. The forest type was the dominant vegetation in the Atherton Shire before farming was established a century ago and is now only represented by remnants such as the Curtain Fig Tree Forest.

Wet Tropics Tree Planting Scheme Update

By Bronwyn Robertson

One of the largest tree planting programs since the WTTPS started has coincided with one of the driest years on the Tablelands for many years! With irrigation and some much-needed drizzle, plantings are now well established and waiting for warmer weather.

Another HUGE effort was put in by the WTTPS crew at the East Evelyn Road site. To date, over 30 000 trees have been planted here, with some already flowering and fruiting.

Over 4000 trees were planted to reinstate a wildlife corridor linking privately owned remnants along Seamark Rd. Cassowaries are still present here and it is hoped this project will assist many wildlife species move between the remnants and adjacent State Forest.

As always, the support and cooperation of the Malanda Landcare Association and many other Tablelands' groups improves the chance of success and community involvement in these vital projects. Thanks for everyone's support!

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