TREAT News

Storm Season 2023
Oct - Dec

Trees for the Evelyn & Atherton Tablelands (Inc.)
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2023 Workshops & Christmas/New Year

Date	Time	Event	Location
Sat 2 Dec	9.00 am	Tree ID & Seed Propagation	Lake Eacham Nursey
Sat 16 Dec	8.30 am	Revegetation	Freemans Forest NR

These popular workshops have been a highlight for new members over many years and are being held again this year. They are free and open to non-TREAT members as well as members. However, it is necessary to register if you wish to attend, as numbers are limited - please ring Barbara Lanskey (ph. 4091 4468) or contact the nursery on 4095 3406.

Tree identification & seed propagation workshop

This workshop is held in two sessions with a tea/coffee break in between, and is scheduled to finish at 12.30pm. Dinah Hansman presents the tree ID session and brings along samples of various tree branches to look at leaf features. She talks about leaf arrangement, feel, smell etc. and explains features such as domatia, glands, oil dots etc. which participants can see by using TREAT's hand lenses. Notes with diagrams are handed out. Peter Snodgrass presents the seed propagation session. At this time of year he has an assortment of seeds collected, and he shows the best ways to sow, germinate and grow the different seed types. Peter also has notes handed out.

Revegetation workshop

This workshop is held at Freemans Forest Nature Refuge where hole digging and planting can be demonstrated.

An infomation session is held first, to talk about what is involved in site preparation, planting and maintenance of a planting site, and Mark and Angela McCaffrey together with Peter Snodgrass share their extensive knowledge and experience of these activities. Notes are handed out. There is a tea/coffee break after the information session, then at a designated area, augers are used to dig holes and trees are planted, to give participants hands-on experience. The workshop usually finishes about midday. Freemans Forest NR is on Cutler Road off Lake Barrine Road.

Christmas/New Year break

TREAT will have a Christmas morning tea on **Friday 22nd December,** with extra food such as fruit and cheese platters, supplied by TREAT thanks to donations during the year to Smoko. The QPWS staff from next door usually come over to enjoy the food and company with us. The nursery will be closed for the Christmas/New Year period and open again for the first working bee for 2024 on **Friday 5th January.**

Inside this issue

Weed of the Month

John Clarkson

As a recently retired QPWS botanist and TREAT volunteer, I have offered to give a short talk on weeds at TREAT, on the last Friday of each month.

The first talk focussed on Navua sedge *(Cyperus aromaticus).* This plant, a native of tropical Africa, was first discovered in Cairns in 1979 by two botanists from the Queensland Herbarium. At the time the weed was regarded as a serious weed in Sri Lanka, Malaysia and islands of the Pacific. A survey conducted soon after the discovery showed the plant was already well established in the Cairns suburbs of Manoora and Manunda. It had obviously been present for some time. How and when it arrived in Australia is unknown. The small seeds are readily spread by vehicles, particularly slashers, and the plant is now widespread in Far North Queensland. It has spread north to the islands of Torres Strait and south to South-east Queensland. It is probably well short of its potential range and further spread is to be expected. Continued page 2

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Navua sedge is easily identified. It is a tufted perennial sedge usually 60-70 cm tall although it can sometimes be taller. The compact, button-like seed head is surrounded by a whorl of 6 leaf-like bracts. Three of the bracts are longer than the other 3. The stem immediately below the seed head is triangular in cross section. The specific name *aromaticus* stems from the fact that when crushed the base of the plant is pleasantly scented. The plant is common on the Atherton Tablelands but perhaps the easiest place to see it is in the drain between the inbound and outbound lanes on Ray Jones Drive in Cairns or along the road edges between the Kuranda turnoff and the Barron River Bridge on the road from Mareeba to Cairns.

Navua sedge is not declared under Queensland's Biosecurity Act although it is listed as a priority plant in the Tablelands Regional Council's Biosecurity Plan.

A folder has been lodged in the TREAT library where fact sheets on the weeds discussed each month can be consulted.

A link to Biosecurity Queensland's fact sheet on Navua sedge:
https://www.daf.qld.gov.au/__data/assets/pdf_file/0007/51010/navua-sedge.pdf

Plant Profile - *Elaeocarpus grandis*

Dinah Hansman

Elaeocarpus grandis is probably the best known of all the rainforest Quandongs, with its big (up to 30 mm diameter), round, iridescent, bright blue fruit. Inside is a large (up to 25 mm) spherical endocarp, or seed-covering (like a peach stone) with an intricate pattern. *E. grandis* occurs from Cape York Peninsula (and PNG) down to north-eastern New South Wales.

Quandong can be a confusing name, because in southern Australia it refers to *Santalum acuminatum*—totally unrelated, but also a bush tucker plant.

E. grandis is sometimes still mistakenly called *Elaeocarpus angustifolius,* which now refers to the almost indistinguishable Northern Territory species. *E. angustifolius* occurs from India to New Caledonia. In Asia the 'rudraksha' stones are cleaned and polished to make beads which are strung into prayer or meditation necklaces.

Elaeocarpus is in the Elaeocarpaceae family, which has the following spotting characters:

- Alternate leaves (except in *Aceratium*)
- Old leaves turn red
- Domatia as foveoles (pockets of leaf tissue) common
- Stipules (only 2mm long in *E. grandis,* so easy to miss)
- Double pulvinus (swelling at the base of the leaf and base of the petiole) – although not in this species.

Members of the Elaeocarpaceae family have beautiful, fragrant flowers, white or pink with fringed petals. When it flowers, *E. grandis* is a magnet for flower visitors—butterflies and colourful beetles on the day shift and flying foxes at night. The tree is also very decorative when it fruits. The bright blue fruit forms a vivid carpet with the shed red and orange leaves.

The brilliant shifting blue colour of the fruit is more akin to the colours in animals—such as feathers, butterfly wings or beetle carapaces. In *Elaeocarpus* species, Lee (1991) found that layers within the cell walls of the fruit epidermis are structured to creative thin-film interference with blue light.

Elaeocarpus grandis - fruit, flower & leaves

The thin layer of flesh is edible, and appreciated by flying foxes, many bird species (including cassowaries), musky rat kangaroos (hipsi or *Hypsiprymnodon moschatus)* and native rodents. It is also a local bush tucker fruit.

Planting *E. grandis* is not recommended for areas that have regular pedestrian traffic or which need to be mown because stones accumulate under trees and they are like marbles. In fact, this species is not recommended for domestic gardens, because it grows into a very tall tree (35 m) and has invasive roots.

E. grandis is an excellent choice for revegetation, because it is one of the fastest growing—trees only a year old can be a couple of metres tall—and because the copious flowers and fruit are sought after. Trees form magnificent plank buttresses and emerge, pagoda-like, above the canopy. Emergents are important as look-out posts for birds and flying-foxes.

There are many novel approaches to growing *E. grandis,* because the stony endocarp needs to partially break down before the seed (embryo) can absorb moisture and push through its developing root and shoot. Seed germination is sporadic and can take several years. In the TREAT nursery, fruit is placed in the compost

tumbler with green waste to partially decompose. Once the flesh has disappeared, stones are placed in a composting bed protected from rat incursions. Then the Forsyth team digs up germinating seeds and the potting bench puts them in tubes. Other techniques include running over stones with a lawn mower, driving over them or banging a nail into the suture.

Lee, D.W. (1991) Ultrastructural basis and function of iridescent blue colour of fruits in *Elaeocarpus*. *Nature* 349:260-262.

Flammability Research at SFS

Barb Lanskey

In the first semester of 2023, students from the SFS (School for Field Studies) Centre for Rainforest Studies, presented their Directed Research at the Yungaburra Community Hall on 29th April. One of the research studies compared the flammability of trees in rainforest, dry rainforest and savanna, in the Australian tropics.

Introduction

"Intense wildfires are occurring in subtropical and tropical regions, and 70-80% of global burned area between 1997 and 2018 were experienced in tropical forests and tropical savannas (Tang et al. 2021)."

"While wildfires are more prevalent in drier ecosystems, they are expected to become more common in tropical rainforests, such as seasonally dry tropical forests (SDTF) and rainforests, where plants possess fewer adaptations for fire (Meir and Woodward 2010). SDTF and rainforests both fall under the category of 'tropical forests', but they differ in their canopy make-up and water availability, as rainforests have much longer rain seasons while SDTF have longer dry seasons. Plants within savannas, however, are adapted to handle wildfires much more than those from rainforests and SDTF (Simon and Pennington 2012), as wildfires are a periodic occurrence in savannas."

"The findings of this study may contribute to a more comprehensive understanding of the comparative flammability of three vegetation types in northeast Australia, and determine which vegetation types are more at risk in terms of wildfires. Tropical forests are known to be the most species-rich ecosystems on the planet, which provides a vast diversity in natural adaptations to fire and water availability (Sterck et al. 2011). As a result, we expect to see differing levels of flammability between plants within each ecosystem. An understanding of the relative flammability between each ecosystem and within each ecosystem provides vital information for fire management."

"One such management option is green firebreaks. Green firebreaks are a method of wildfire management that involves the planting of species selected for low flammability traits that are planted at specific locations as a method of slowing or stopping the spread of wildfires (Curran et al. 2017)."

"We sought to investigate the difference in relative flammability between the different forest types occurring in a similar region and the species within each region. With an overarching hypothesis that the three vegetation types will exhibit different shoot level flammabilities, we predict that savanna trees will be the most flammable and rainforest trees the least flammable. Since the plants in SDTF are often affiliated with rainforest and form closed canopies, like rainforest, we predict that SDTF trees would have shoot flammability more similar to that of the rainforest than savanna. Identifying the levels of relative flammability within each region are important in providing improved understanding for the fire ecology of these different regions and could help land managers to better address and reduce fire risks in a particular region."

Study Sites

The students used for their rainforest data, the database collected by previous SFS students (Ortiz et al. 2023 unpublished data) in the Fall of 2022, from simple notophyll vine forest. For SDTF forest, they used species collected from Chillagoe National Park in sites dominated by *Brachychiton australis* emergence and diverse families of other tree and shrub species. The savanna species were collected near Mount Baldy and near Granite Gorge at localities where *Corymbia* and *Eucalyptus spp.* frequent.

Species Collection

"At each vegetation type studied, we collected 70cm long branches of the outer canopy of healthy, mature individuals. We also collected subsamples of 20cm in length with a minimum of five leaves for leaf functional trait analysis. We collected branches of 13 SDTF species, with a total of 66 samples, and 10 savanna species, with a total of 54 samples. The previously collected rainforest species database contained 47 species with a total of 235 samples. The SDTF and savanna data was additionally supplemented with species from previously completed databases, with 14 additional SDTF and 21 savanna species being added. In total we compiled 602 samples from 107 species."

Experimental Setup

The students used a barbecue grill and a blowtorch to measure burn time etc. "Once the grill had reached 110°C - 130°C, we placed the 70cm branch sample on the grill for two minutes to replicate drying from an approaching wildfire.

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After two minutes, a blowtorch flame was applied on the distal end of the branch for 10 seconds. We measured branch flammability traits by

Left: Flammability testing apparatus. Beefeater 1100 between two windbreaks with a sample preparing for burn. iPhone 14 on tripod to record flame heights. Right: Active burning post blowtorch on distal end for 10 secs.

recording burnt biomass, total burn time, flame height, and the maximum temperature of burn. We recorded the burn time starting from the first initial flame using a handheld stopwatch, measured maximum flame temperature using a Fluke 'IR' Thermometer, and recorded the percentage of burnt biomass via visual analysis. We recorded each burn on an iPhone 14 attached to tripod and reviewed these videos to determine the maximum flame heights, using a meterstick set up on the grill for reference."

Functional Trait Analysis

"Using the collected subsamples, leaf area and leaf dry matter content (LDMC) were calculated for each individual. The leaves on each subsample were plucked from the leaf and placed on a flat, white sheet. These were pressed under a glass sheet and a picture was taken to upload onto paint.net for leaf calculations. The LDMC was measured by measuring the weight of the fresh leaves. The leaves were then dried in an oven at 70°C and until they were completely dried, upon which they were re-weighed to find dried leaf mass."

Results and discussion

"To our surprise, our results were not in line with our expectations, with rainforest trees having maximum temperatures, burnt biomass and burn time being more similar to those of savanna trees than SDTF trees."

"As expected, the savanna species were found to be highly flammable. Previous studies have identified that drought tolerant plants may make adjustments that can increase plant flammability (Sultana 2022). Due to this, there is the potential that drought tolerant plants are actually more fire sensitive than previously thought, which can be exacerbated by the effects of droughts (Holan et al. 2020). Our results provide support to these points and reaffirm that area with low water access and frequent droughts, such as the savanna, are areas of fire risk. Proper attention and measures, such as green firebreaks, are therefore needed for the savanna."

"Interestingly, however, was the fact that although rainforest plants are considered to be less flammable, they in fact had high flammability similar to that of the savanna. This is likely due to the lack of fire adaptations that rainforests plants possess (Meir and Woodward 2010), which may be due to their environment. Because of the wet, moist conditions of the rainforest, wildfires are a rarity, and plants have not needed to adapt to survive these fires. Research has found that moisture is an important limitation to rainforest wildfires and thus a drying period from droughts, which we simulated in our experiment, may be detrimental. As droughts increase, however, these drying periods may become more prevalent and thus increase the flammability of these species, making it important to recognise rainforests as fire-risk areas."

"Our data also provides important data on species that may be effective in green firebreaks for each biome. With the understanding that each of these vegetation areas faces a risk of wildfire, including rainforests, identifying the least flammable and most flammable species in each biome can help determine appropriate species for a green firebreak."

Conclusion

"Overall, our findings highlight the urgency of fire management practices in the three studied biomes, especially when considering the increasing lengths of droughts. As changing global conditions continue to threaten these vegetation areas, especially rainforests, utilising green firebreaks with native, relatively fire resistant plants is necessary. Improving the land management practices in these areas with the implementation of green firebreaks can be especially helpful in the context of private properties, where a potential lack of resources makes high effective, efficient practices needed. Continued research is needed on the topic of flammability so as to better understand and incorporate this and future information into bio-ecophysiology when addressing the future of wildfire management."

Research paper: Shoot and leaf flammability of plants in North Queensland Australia

Research authors: Audrey Crawford, Texas Tech University, Amy Marie Gaulke, Brown University, Daniel Ire Kim, Brown University, Owen Chen Tsunoda, University of Southern California

Research Advisors: David Tng, PhD, Centre for Rainforest Studies, Deborah Apguana, PhD, Centre for Rainforest Studies

2023 AGM Report

Barb Lanskey

Nearly 30 people attended TREAT's 41st Annual General Meeting on Friday evening 1st September at the Yungaburra Community Hall.

Peter Snodgrass gave his Nursery Report as a Power-Point presentation, and this year the wall was used as the screen, to give a better and bigger image. Mandy presented her yearly audited Financial Report and drew attention to some of the larger figure amounts. Angela read her President's Report - see this newsletter. She noted that both Mandy Bormolini and Dinah Hansman were stepping down this year from the TREAT management committee, and led the applause to show our appreciation of their work.

All committee positions were then declared vacant and Alan Gillanders was invited to chair the election of the management committee for the coming year. A list of nominees and positions had been on display at the nursery for 2 weeks and those nominees were elected. One committee member position was still available, and Angus Emmott was nominated and elected at the meeting.

The committee for the coming year is:

President - Angela McCaffrey
Vice-president - John Hardman
Secretary - Doug Burchill
Treasurer - Kelvin Brooks
Committee members - Belinda Bogart, Simon Burchill, Christine Eade, Angus Emmott, Irene Gorman, Jemma Horner, Barbara Lanskey, Dave Skelton.

During the year, Carey Robinson moved back to Melbourne and was replaced on the management team by Gemma Horner.

A General Meeting follows the AGM. This year it was extremely short as no issue was raised.

Angela then asked Alan to give us his talk for the evening. This was in place of Nigel Tucker's talk which Nigel had to cancel due to family matters.

Alan's talk was about five plants for the garden. He'd brought along samples of some of their foliage, flowers and fruit and used these in his talk as well as pictures on the screen. It was all most informative, and there were quite a few questions asked. While some of the garden trees can grow very large in the rainforest, Alan pointed out that he'd never yet seen a rainforest tree die from pruning. The species he spoke about were: *Galbulimima baccata* (Pigeonberry Ash), *Hicksbeachia pilosa* (Red Bauple Nut), *Athertonia diversifolia* (Atherton Oak), *Syzygium fibrosum* (Fibrous Satinash) and the fern *Microsorum membranifolium* (Pimple Fern).

Supper was then held and the last of us left about 9pm.

President's Report 2023

Angela McCaffrey

Firstly I'd like to acknowledge with respect the Traditional Owners of the land where we are tonight, the Tablelands Wadjanbarra Yidinji.

TREAT has had a solid year since our last AGM.

We have signed a new MOU with QPWS, cementing our relationship for the next 5 years and giving us the certainty we need to go forward.

Our membership has increased, which has been helped by the regular representation at Yungaburra Markets, thanks to Andrew and Trish Forsyth, promoting TREAT at every opportunity.

Since last September, we have held our popular workshops, one on tree identification and propagation at the nursery and another on site preparation, planting techniques and maintenance, at Freemans Forest Nature Refuge. Thanks go to those involved for presenting and catering.

Our planting season started early this year on 14th January and ended on 22nd April after 9 plantings.

Almost 21,000 trees were planted at community plantings by a total of 533 volunteers, supported by our ever popular BBQ teams. Thanks to everybody involved. Out of that 21,000, 13,380 were TREAT/QPWS produced trees, and the rest came from TRC, NQLMS, RRA, Wandana Waters and other nurseries. A further 5,562 TREAT trees went to members for their own projects.

Rain was regular and sustained, with no frost, so survival and growth rates have been high.

Another significant event was the launch of the new TREAT website. Dinah Hansman has worked hard to produce an extremely professional looking result with help from Trish Forsyth and Irene Gorman. It's an exciting new look with all the information easily navigated and beautifully illustrated with photos.

Last year I mentioned a major scientific study which TREAT has taken part in during the last 12 months. The 3 Corridors project looked at the differing development of 3 planted corridors, each more than 10 years old. The results have been amazing and Nigel Tucker, the project's lead author was going to share some of the findings with you tonight but family matters have prevented that. We look forward to another occasion when we can hear about this exciting study which compared the changes in Donaghy's Corridor, The Lakes Corridor and Peterson Creek Wildlife Corridor.

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Our only field day this year was at Geraldine McGuire's and Athy Nye's property on Lindsay Road where native edible fruit is grown for their business, Rainforest Bounty. Over 30 people turned up on a very drizzly day and it was really interesting to learn how they manage the need for consistent and regular, high quality, organically grown, native fruits of 4 types in an orderly orchard with the aspiration to create revegetation over time. Information sessions were followed by afternoon tea provided by Barbara Lanskey and Elizabeth Hamilton-Shaw.

TREAT held two working bees at Freemans Forest Nature Refuge to remove weed matting squares which were put around each tree back in 2013. The mats were supposed to biodegrade in two years but are still there 10 years later. One Friday morning about 12 volunteers managed to remove around 500 mats before morning tea at the nursery. The second occasion was when 18 American students and 3 supervisors from the Wildlands Studies Group were supervised by Simon Burchill, Mark McCaffrey and myself. As well as the removal of weed matting, the students helped sort a large pile of old fence posts, other bits of wood, plastic pipe and irrigation parts. The fence posts and wood were carried down into the plantings and made into small stacks for lizard and snake habitat, whilst all the other materials were stored or disposed of. We estimated a further 1,000 mats were removed. This still leaves about 4,000 to go, so more working bees will be arranged.

Regular TREAT activities continue as usual, including Friday mornings at the nursery where 60 or so volunteers come each week to clean seed, pot up seedlings, scrub pots and organise morning tea. Staffing at the nursery has now stabilised, with Peter in charge, Julia Hengstler in the 004 position and Stuart Russell in the 003 position. The seedlings flourish and the nursery is clean and beautiful. Output goes from strength to strength.

The newsletter continues to be put together by Barbara Lanskey with many talented contributors. The electronic version is sent out by Irene Gorman and Mandy Bormolini. It's an excellent read.

Turning now to the committee members, all twelve contribute significantly to keep TREAT organised, relevant and up to date. I thank them all for their dedication and commitment. In particular I want to mention two who are stepping down this year; Mandy Bormolini and Dinah Hansman. Mandy, after 10 years as our treasurer has decided it's time for someone else to come in to this role. Mandy has played a big part in helping us make important decisions and has used her considerable knowledge to keep us up to date with technology as well as using her 'no nonsense' approach to keeping all of us focused on what matters. Dinah also steps down after 6 years but has agreed to continue in her roles as website manager, tree ID workshop presenter and Facebook manager, to all our relief. Please join me in showing our appreciation to both by applauding.

That brings my report to a close and we look forward to another year with a new committee.

Nursery News

Peter Snodgrass

With a new financial year underway, the numbers for the last financial year have been crunched, with some outstanding results. The tables reflect the amazing effort by TREAT volunteers over the past 12 months with both production in the nursery and at tree plantings out in the field. Together we have produced trees for so many different ecosystems, for distribution to so many landscape restoration projects throughout the Wet Tropics World Heritage Area. This includes critical areas such as the Wongabel Conservation Area and the Forty Mile Scrub and Eubenangee Swamp National Parks. Distribution also included support for schools, traditional owner groups, South Endeavour Trust and Yungaburra Landcare as well as TREAT members and significant TREAT-supported projects.

Nursery upkeep continues. The tops of racks in the hardening bays are rusting out due to fertiliser in the potting media and being constantly wet, creating a safety risk. Replacement of the rusted components such as support piping and mesh are being gradually refreshed, thanks to TREAT providing the materials to carry out this work. Thank you TREAT.

While I'm on leave, returning to work on the 6th November, Julia Hengstler will be acting manager, with Stuart Russell acting in Julia's position.

Production is on schedule and the plants are looking great. With visits from SFS (School for Field Studies) and recently a visit from SIT (School for International Training) the nursery has had a spring clean throughout the hardening areas. A welcome spruce up. Thanks to the dedicated volunteer effort in the nursery, everything is looking very tidy.

As the cycle continues with the end of another productive year and the excitement of many more revegetation projects ahead of us over this next wet season, we are grateful to everyone for their contributions over the past year and we look forward to seeing all in both the nursery and out in the field.

Tree Distribution	2020-2021	2021-2022	2022-2023
TREAT members	10,728	9,757	5,562
TREAT projects	5,513	3,457	4,897
QPWS Tenure (Incl. Wongabel CA)	3,400	3,615	11,565
Barron Catchment Care – Wongabel Conservation Area	0	0	(5,915)
Yungaburra Landcare	0	0	171
Schools - Mourilyan & Woree	0	0	93
South Endeavour Trust	4,002	1,232	6,421
Traditional owner groups	0	0	130
Total	26,445	18,061	28,839
Nursery Production	**2020-2021**	**2021-2022**	**2022-2023**
Volunteer hours at nursery and Display Centre	6,883	6,872	8,533
Total potting (repotting)	47,896 (11,759)	42,433 (16,374)	53,171 (12,476)
Stock held at annual Aug/Sept stocktake	49,000	60,000	65,000

Nature Kids & TREAT

Barb Lanskey

For several years now, TREAT has been part of the Lake Eacham Nature Kids Club (LENKC) education program. It is organised by Jodie Eden, Community Education Ranger at QPWS in Atherton, and is for primary school students interested in learning more about nature.

There are two programs each year, the first held in May in second term and the other in August in third term. There are 6 sessions in a program, and they are held weekly, on Wednesdays, after school from 3.45 - 5.15pm. They generally take place at the Lake Eacham recreation area, but the TREAT session is held at the TREAT nursery.

The program is for students aged 7 - 9 years. Jodie sends the program to local schools and interested parents contact Jodie to enrol their children. Only 15 places are available for each program and are quickly taken. The second program is the same as the first, so those who miss out on the first are directed to enrol later for the second.

The programs can change each year, depending on who is presenting a session, but the TREAT session remains the same and is always held last. This saves confusion about where the kids need to go each session. Presenters and helpers meet about March to discuss what topics will be given for the year's program, and the topics are named to interest the kids. Some years ago, Terrific Trees was decided on for the TREAT session and that name has stuck. Other topics and associated messages this year were: Welcome to Lake Eacham/ biodiversity - Protect and respect; Turtles - Don't feed the animals; Symbiosis - Domestic animals don't belong here; Life on the small scale - Everything is protected; Colours of the tropics - Stay on the track.

Jodie liaises with parents, presenters and associated helpers, and ensures that all is in place regarding risk and safety. If children become unwell, they're asked not to attend; if a child has a particular problem, the parent is asked to stay and take responsibility for the child. Sometimes the parents just stay anyway, to observe. This often happens with the TREAT session when parents are interested in what TREAT does. Parents or those dropping off the kids, sign them in and when they collect them, sign them out.

The presenters and helpers are given a list of the girls and boys enrolled, their ages and any special comments or medical notes. I try to be a helper at one or more of the first five sessions, and get an idea of the various personalities and behaviour of the kids. This year I attended Maria's session Colours of the Tropics. In the May program, some of the kids were quite boisterous, and I was thankful for Alan's experience and help in handling those kids at my session. In the second program, the average age was about a year older and the kids were more attuned to listening and learning.

The Terrific Trees session is based on the successful Tree Awareness Program that TREAT had in the past for visiting school groups. For LENKC, after a quick tour of the nursery, the students are divided into 3 groups and they rotate through the 3 activities of cleaning seeds, potting up seedlings and weeding the growing trees. This gives them valuable hands-on experience, and if they wish, they can take a tree seedling they've potted up home with them. Their last activity is colouring-in an A4 copy of our poster 'What a Wonderful Tree' and filling in some missing words which they can check with the poster.

QPWS find appropriate seeds for cleaning by the kids, and appropriate seedlings for potting up. They also organise potting mix onto the moveable low bench for the kids. The kids are thanked for their help with the nursery work, and water the seedlings they potted. This year the TREAT team was Alan and Maria Gillanders, Pauline Errey, Wendy Lander and myself. Pauline helped me at the potting bench, Wendy helped Maria in charge of weeding, and Alan handled the seed cleaning. Peter had collected a lot of Black Bean seed pods this time, and the boisterous kids in the first program had great fun jumping on the pods to get at the seeds. In the second program the seeds had already been taken from the pods, and the kids sowed them straight into super tubes.

Everyone generally goes home very happy.

Fruit Collection Diary July - September 2023

Species	Common Name	Regional Ecosystem	Collection Dates
Aceratium ferrugineum	Rusty Carabeen	7.8.3	12/7, 27/7/2023
Acronychia acronychioides	White Aspen	7.8.2	20/09/2023
Acronychia vestita	Hairy Lemon Aspen	7.8.2, 7.3.10	12/7, 16/8/2023
Adenanthera abrosperma	Giddy Giddy	9.3.3	16/08/2023
Adenanthera pavonina	Red Beantree	7.3.10	5/09/2023
Arytera divaricata	Rose Tamarind	7.8.2	31/08/2023
Chionanthus ramiflorus	Native Olive	7.8.2, 7.8.3	19/7, 20/9/2023
Cinnamomum laubatii	Cassia Cinnamon	7.8.2	19/7, 10/8/2023
Cordia dichotoma	Glue Berry Tree	9.8.3	13/09/2023
Cryptocarya melanocarpa	-	7.8.2, 7.3.10	19/7, 20/9/2023
Darlingia ferruginea	Rose Silky Oak	7.8.3	27/07/2023
Davidsonia pruriens	Davidson's Plum	7.3.10	18/07/2023
Diospyros humilis	Black Ebony	9.8.3	13/09/2023
Dysoxylum rufum	Rusty Mahogany	7.8.2, 7.8.4, 7.3.10	27/7, 24/8/2023
Endiandra globosa	Black Walnut	7.3.10	12/07/2023
Ficus opposita	Sandpaper Fig	9.8.3	13/09/2023
Ficus rubiginosa	Port Jackson Fig	9.8.3	13/09/2023
Ficus watkinsiana	Watkin's Fig	7.8.2	5/07/2023
Geijera salicifolia	Flintwood	9.8.3	13/09/2023
Glochidion hylandii	Buttonwood	7.8.2	24/08/2023
Helicia nortoniana	Norton's Oak	7.8.2, 7.8.4	19/7, 24/8/2023
Litsea leefeana	Brown Bollygum	7.8.2	12/7, 23/8/2023
Lysiphyllum cunninghamii	Bauhinia	9.3.3	16/08/2023
Mallotus mollissimus	Woolly Mallotus	7.8.3, 7.8.4	31/08/2023
Melaleuca viminalis	Creek Bottlebrush	7.8.2	31/08/2023
Morinda citrifolia	Cheesefruit	7.3.10	20/07/2023
Nauclea orientalis	Cheesewood	9.3.3	16/08/2023
Opisthiolepis heterophylla	Blush Silky Oak	7.8.2	10/08/2023
Parinari nonda	Nonda Plum	9.3.3	16/08/2023
Pittosporum wingii	Hairy Pittosporum	7.8.3	27/07/2023
Planchonella myrsinifolia	Yellow Boxwood	7.8.2	6/09/2023
Polyscias elegans	Celerywood	7.3.10	18/07/2023
Pullea stutzeri	Hard Alder	7.8.2	19/07/2023
Sarcotoechia serrata	Fern Leaved Tamarind	7.8.2	5/07/2023
Schefflera actinophylla	Umbrella Tree	7.8.2	20/09/2023
Syzygium aliiligneum	Puddenwood	7.3.10	12/07/2023
Syzygium australe	Creek Lillypilly	7.8.2	5/07/2023
Syzygium graveolens	Cassowary Satinash	7.3.10	12/07/2023
Syzygium gustavioides	Watergum	7.3.10	12/07/2023
Syzygium hemilamprum	Cassowary Gum	7.3.10	2/08/2023
Ternstroemia cherryi	Cherry Beech	7.8.2	31/08/2023
Wilkiea longipes	-	7.8.3	12/7, 20/8/2023

Species and Common names taken from 'AustralianTropical Rainforest Plants Edition 8' online key.

TREAT

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