Christmas 2011 Breakup

Stuart Worboys

Hullo SGAP people and an early “Merry Christmas” to you all. This year’s Christmas breakup will be held up at Copperlode Dam, starting midday on 19 November – a bit of a change of scenery from the usual digs at the Flecker Gardens.

It seems this is not the first time this venue’s been chosen for the Christmas breakup. Way back in 2007, SGAP members braved predicted torrential downpours (Cyclone Guba was making a mess of the south coast of PNG at the time, and affecting weather systems across northern Australia). However, Mary Gandini reported a successful outing, and at least two threatened species were discovered on the post-lunch outing across the dam wall. See the full report and species list at: http://www.sgapcairns.org.au/Newsletters/74_Dec07.pdf

So far this year, there’s been no sign of cyclones, and I hope things will stay that way. The plan is as follows:

- Arrive between 11:30 and midday, grab one of the barbecues
- Bring stuff to cook on the barbecue, and bring a plate to share
- Although the kiosk is currently closed, the seating area is still open, and this can be used if the weather gods are angry
- After lunch and a short meeting, head out for a walk and see what’s in flower and in fruit.
Barbara Collins

Barbara has asked me to mention the availability of Archibald Meston and Frederick Manson Bailey’s significant report of their 1889 expedition to the Bellenden Ker Range. This document is a milestone description of one of the earliest and most extensive scientific expeditions in the tropical north. At the time, Archibald Meston was editor of the Cairns Chronicle, but had lead a varied career as farmer, writer and leading lobbyist for a rail link to the Tablelands. F.M. Bailey at the time was Colonial Botanist, a role he was to hold (paid and unpaid!) until his death in 1915.

“Botany of the Government Scientific Expedition to Bellenden-Ker Range: Upon the Flora and Fauna of That Part of the Colony” describes in detail the landscape as it was just a few years after European settlement. The expedition resulted in the description of almost 100 new species, mostly by Bailey himself, but also by Mueller in Victoria.

The report has now been republished, and a friend of Barbara’s has suggested it can be purchased online. He advises:

“The details on where to get it are from AbeBooks. They are the umbrella website that I use to buy most of my books. Thousands of bookshops list their stock on the site so you actually buy from the bookseller and AbeBooks is the middleman. It is handy as instead of searching a particular bookseller for a book and then looking at another and another and another you do one search and pull up all the copies available from all the sellers. I get most of my books from the US and UK but there are also European, Asian, Indian shops etc. Over the years I’ve got books from Canada, Holland, Germany, Japan, South Africa and Australia of course but mostly they are from the US or the UK. There are a few very big sellers that usually have most of the stock and the cheapest so mostly I buy from them but rarer items come from whoever has it. The website is:-

• http://www.abebooks.com/

“I usually go to the advanced search and set it to show 50 books at a time rather than having to keep on changing screens if there are a lot of copies. Meston’s book came from one of the really big UK dealers:-

• The Book Depository Guernsey, GY United Kingdom.

“You can buy new books or second hand. Most of what I get is out of print so they are second hand but the camera manuals I got recently are all new and a fraction of the price in a bookstore. Increasingly there are POD (Print On Demand) books of which Meston’s is one. There wasn’t any delay in getting it though. The site is fairly well set out and easy to use.”

A modern analysis of the expedition is provided by John Dowe and Alan Broughton of the Cairns Historical Society, and was published in Austrobaileya in 2007. In their article, they present a map of the expedition’s route, and list all the species described. The article can be sourced online at http://eprints.jcu.edu.au/2763/1/2763_Dowe_2007.pdf
Excursion to Crystal Cascades, October 2011

By Don Lawie

Saturday 15 October saw us meeting on a hot steamy noontime at the beautifully cool Freshwater Creek Gorge, aptly named Crystal Cascades. The creek flows down its ancient path by a series of small cataracts which expand into freshwater pools that are ideal for safe swimming, and many people were making good use of them. We met for lunch in a convenient rainforest gazebo – the Council has provided very appropriate low-key infrastructure in the area – and we were pleased to welcome back long term members Val and Graeme Carnie, taking a break from Grey Nomading.

The track to Dowah Creek Falls petered out at Cyclone Yasi damage so we retraced our steps and walked the wide concrete boulevard that parallels the gorge’s edge. The concrete covers the pipeline that is Cairns’ main water supply and the gorge wall rises vertically beside it. The approach path has been planted with a wide variety of trees and provides a mini botanical tour of the area, with trees of the Tablelands and Daintree area. Notable were well advanced specimens of Atherton Oak *Athertonia diversifolia*, Daintree Penda *Lindsayomyrtus racemoides*, Native Gardenia *Atractocarpus fitzalanii* in flower and an approximately 20 year old Stockwellia which has the potential to develop into a forest giant in a few hundred years. Right at the boomgate entrance a large (for its species) *Syzygium wilsonii subsp. wilsonii* showed its last beautiful powderpuff bloom for the year.

**Things that sting**

There had been very little recent rain and the vines and epiphytes were much in need of moisture. The many *Asplenium* ferns were sad and pale and *Hoya pottsii* leaves were curled and wrinkled but there were a few bunches of their amber hanging-basket inflorescences. There are several signs warning of stinging trees *Dendrocnide moroides* without illustrating them and a group of Sydney visitors were most interested when Rob pointed out a specimen to them and reinforced the written warning. All of this species seen were quite small and out of the road but Rob was concerned at the number of Shining Leaf Stinging Trees *Dendrocnide photinophylla* that leaned out over the path and could be a danger. Rob also pointed out a Stinging Vine *Tragia finalis*. Another large vine which didn’t need to sting since it is armed with vicious spikes is *Zanthoxylum nitens* which lurked safely off the track.

*Tragia finalis* (EUPHORBIACEAE). An unusual stinging vine unrelated to the nettle and stinging tree family.

Giant Pepper Vine *Piper hederaceum* with its distinctive “cotton reel” stems up to 75 cm diameter were numerous, in particular a very large one that climbed to the top of a large Red Cedar *Toona ciliata* growing below us in the gorge so that we could almost view its canopy. *Piper caninum*, a small Pepper, was in fruit and a patch of the fascinating *Piper umbellatum* with its wide peltate leaves and sticklike upright inflorescences took advantage of a shady spot beside one of the
many small streams which cascaded down the bank beside us.

**Grasses, pandans and other monocots**

A small clump of *Leptaspis banksii*, “the most primitive of all grasses” took our attention until Val discovered an extensive grove of *Pandanus gemmifer* growing along the creek with bunches of cherry-red fruit at eye level and many tiny reproductive “pups” scattered along the branches. This took us to the gate across the walkway, and after watching aghast at young people hurling themselves off high cliffs into small pools we made our way back to the gazebo for afternoon tea while a wild thunderstorm raged around us and brought cool rain to revive the parched plants.

*Piper umbellatum* (PIPERACEAE). The only native member of the pepper family to grow as a shrub.

Orchids?? Oh yes, Rob had to find some orchids for Pauline: Numerous specimens of the Cinnamon Orchid *Corymborkis veratrifolia* grew along Dowah Creek, I found some large Pencil Orchids *Dendrobium teretifolium* in a big Milky Pine *Alstonia scholaris*, and Rob topped the day with a beaut specimen of *Eria kingii*, just finished flowering, on a Brown Tulip Oak *Argyrodendron polyandrum*, from which the tiny orchid seeds will in a few months ride the winds up and down the gorge until they find a compatible niche to germinate and grow.
Myrtle Rust

Stuart Worboys

In less than two years, myrtle rust disease has established a foothold in eastern Australia. Quarantine and plant disease experts in Australia have held concerns about the potential introduction of myrtle rust disease from South America. In April last year, these concerns were found to be well justified, with the discovery of the disease in nursery plants in New South Wales. Despite an emergency control response (now discontinued), the disease established itself in native bushland, and is being found further and further afield.

What is myrtle rust?

Myrtle rust is a disease of Myrtaceae caused by a fungus, *Puccinia psidii* sens. lat. Under warm, humid conditions, the tiny golden yellow spores settle on new growth. Here they germinate and penetrate the delicate new leaf tissue, feeding from and destroying the living cells.

When they have exhausted their food supply, they erupt through the leaf tissue, creating patches of yellow spores that are released into the atmosphere to start the cycle again. Diseased tissue has a brown or purplish colour, and is often curled and deformed.

Some species are affected worse than others. A highly susceptible species could be killed by the disease, a plant with low susceptibility may simply suffer from deformation and slowing of growth.

Host range

Angus Carnegie of the New South Wales Department of Primary Industries has reported over one hundred native species as susceptible to the disease. These all belong to the Myrtaceae family, by far the majority are rainforest species. Familiar, but highly susceptible species include *Decaspermum humile*, *Melaleuca quinquenervia* and *Backhousia citriodora*. A more detailed list can be found in his report¹, whilst Queensland has published a list online: http://www.dpi.qld.gov.au/4790_19789.htm. The host range is likely to expand. Already there are reports of the disease from a specimen of *Mitrantia bilocularis*, a rare north Queensland endemic under cultivation in northern NSW.

What can be done?

The disease is established: it cannot be eradicated from bushland environments. The goal now is to slow its spread and minimise economic impacts on forestry and the nursery trade. Queensland Department of Primary Industries have recommended buying healthy plants from nurseries, cleaning equipment and clothes after gardening, and regular inspections and monitoring and reporting. More information on treatment and control can be found at http://www.dpi.qld.gov.au/4790_19788.htm.

¹ Carnegie, A.J. and Lidbetter, J.R. (2011) Rapidly expanding host range for *Puccinia psidii* sensu lato in Australia. Australasian Plant Pathology,