

Ramblings From 'Down Under'

by Oswald Blumhardt
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I enjoyed the fine article in the last *MAGNOLIA*, entitled, "Magnoliaceae on Mt. Kinabalu," by Frank D. Mossman, and thought perhaps the members might be interested in some additional observations made in this same area, and also, for a brief time, in Thailand.

In May 1979, I had the opportunity to botanize in that part of the world, and started at Chiang Mai, in northern Thailand. Knowing that both magnolias and michelias are native to that country, I paid a visit to the Forestry Department to get permission to collect plants. Mr. Jackson, an Englishman employed there, showed me a book on the flora of Thailand that listed three species of each genus. The descriptions were not terribly exciting from a horticultural standpoint, and as it turned out I was unable to locate any of them in the few days available.

One of the native species is *Magnolia henryi*, which, according to Dandy's notes has the largest leaves of any evergreen magnolia, so it should qualify as an ornamental on that score alone. Mr. Jackson informed me that the King was developing a botanical collection at his winter palace at 6,000 feet altitude on Doi Sutep, near Chiang Mai. Visiting was allowed only during certain hours, and it was forbidden to leave the roadway and walk about the grounds, so it was quite frustrating to see distant magnolias in the botanical area, and not be allowed to approach and examine them! Naturally I'm keen to have a closer look, and hope to visit there again about the same time next year. I didn't allow enough time on the

first trip, and being unused to travel in these countries, was not able to cover as much ground as anticipated.

The next stop was magnificent Mt. Kinabalu, located almost at the northern tip of the huge island of Borneo, and there my collecting luck changed for the better. On this trip I was looking mainly for plants of the genus *Rhododendron*, and expected them to be near the temperate top of the mountain, so went directly to the highest point, at 13,400 feet with the intention of collecting all the way down.

There was vegetation to within a few yards of the highest point (which was bare granite), and *Rhododendron ericoides*, with its tiny heath-like leaves and flowers, was the topmost species. There were rhododendrons and other interesting plants all the way, but the top few thousand feet had very little soil on the granite, which supported only thin scrub of just a few species. Rhododendrons and most other plants were much more plentiful and varied at the middle altitudes, and there are apparently many rhododendrons and other very interesting plants at the



Magnolia × *soulangiana* 'Lennei.'
Photo Gene Eisenbeiss.



Magnolia × *soulangiana* 'Lennei.'
Photo Gene Eisenbeiss

Park Headquarters level, where I hadn't time to look.

I was surprised to find many plants closely related to our New Zealand natives, such as *Agathis*, *Leptospermum*, *Podocarpus*, *Dacrydium*, *Phyllocladus*, *Dianella* and many ferns. These grouped themselves into the same plant associations that they do here in New Zealand, except that on Mt. Kinabalu they were mostly on the hungry soils at 9-11,000 feet. I collected about a dozen rhododendron species plus some natural hybrids, and many other interesting plants. As usual, the species from the highest altitudes are proving the most difficult to grow, as they are accustomed to a most peculiar climate, where temperatures drop to near freezing every night and rise to a pleasant and comfortable level during the day. At only five degrees from the equator, there is little seasonal variation at all.

Darkness overtook me while descending the mountain, and I spent the night in a trailside hut. In the morning I noticed a small plant a few yards from the hut that just had to be a *Michelia*, and took scions from it. Although I failed to find the "mother tree" of this seedling, the scions did well when grafted on *Michelia doltsopa* at home, and I now have two strong young six foot trees of this still unidentified species with completely glabrous leaves.

Along the main track, a bit farther down, I noticed a group of large, bold-

leaved trees with a "magnolia" look to them. A silvery white pubescence on the undersides of the leaves was visible from afar, but alas I was not able to get to them, as they were down the bank from the path, with thick jungle creepers in between. I bought a book on Mt. Kinabalu from the National Parks and Forests office, and it indicated that these large trees are a species of *Talauma*. There is also a shrubby, semi-prostrate *Talauma* species along river-banks at the 3-5,000 foot level (near the park headquarters).

The book states that there are eight members of the Magnoliaceae in the park area, and mentions that two new ones were recently discovered. Whether these two are included in the eight, or in addition to them, was not made clear. The book contains a drawing of a *Magnolia carsonii* in fruit, and from the uneven, distorted seed cone, I would guess it belongs in the elusive genus *Maingola*. At about the 9,000 foot level, I was able to collect scions from a small-growing magnolia. Green seed cones would indicate it to be in the same section of the genus as *M. delavayii*, as they had a similarly conical shape. I got two grafts to grow (on *M. grandiflora*). One has since died, but the other has a flower bud developing, though only two feet high. I did not see its flowers in the wild, nor did I learn its name as yet. You can see why I am anxious to go back to Mt. Kinabalu!

My magnolia breeding program is starting to produce results. We marketed plants this year of two of my seedlings, although one of them was a putative hybrid of *M. x soulangiana* cv. 'Amabilis' apparently crossed with *M. campbellii*. I call it 'First Flush,' as it is my first successful seedling, is early blooming, and is white, flushed with pink on the lower half of the outside tepal surfaces. My first cross was *M. x veitchii* × *M. denudata* (never will I use or recognize the recent nomenclatural madness regarding this

species and *M. liliflora*) and although most have flowered, and I have made a few selections, I have not decided to name any of them as yet. They were planted far too close, and I'm still trying to give those that have not yet flowered, and those that have and look promising, more room.

My *M. liliflora* × *M. campbellii* seedlings have not had enough room either, but one flowered at three years and others at four and five, and I am making some room by taking out duds and a row on either side. The first to bloom is a nice compact sort of tree, with quite a good flower, but purplish in color. It is fertile and I have seedlings from crossing it back to *M. campbellii*. At four years, several purplish ones flowered, plus one with bright pink blossoms showing only the slightest trace of mauve. It is also the most vigorous plant in the batch, with a strong central trunk and wide-spreading branches (or they would be if they had room). The flowers are fairly large, and the outer tepals are rolled into tubes or spikes sticking out all around the buds and opening blooms. As they are borne freely and point in all directions, I call the plant 'Star Wars.' It has nice dark green foliage, and roots very easily from cuttings, so it may prove a good commercial variety and a substitute for *M. campbellii*, although the flower form is not nearly as attractive as that species. It is also fertile, and I have seedlings from crossing it with *M. sargentiana* var. *robusta* (pollen from a friend).

I read about Hopkins and Savage experimenting with freezing pollen, and I have been able to use this method to make crosses that I was not successful with before, such as *M. campbellii* pollen on *M. liliflora nigra*. My first batch resulted from pollen of this frozen *M. campbellii* pollen on *M. × soulangiana* 'Lennei' with success. Unfortunately, the seedlings from this and several other promising crosses are lingering in seed trays, waiting on time and space to get planted out.



Magnolia × *soulangiana* 'Rustica Rubra.' Photo Gene Eisenbeiss.

I now aim to pot them (in about two stages) into black plastic planter bags of about five gallon capacity, and then set these slightly into the ground with holes enlarged a bit at the corners and trickle irrigation to keep some healthy roots in the containers, while others dive down into the ground to hold up the tree etc. When they have bloomed, I should then be able to dig around them and shift them again (the majority could be sold) with much less work than is required to dig trees planted in the ground in the usual way. In my efforts to make room, I enlisted help from the City Parks Department staff, who helped to dig them, and took away, in two years, about three truckloads of trees for planting in the city parks etc. I have also sold a number, and have a growing demand for magnolias, but find it hard work!

We have quite a list of species and cultivars of magnolias represented here now, with what I have got from the Hetzers, the late Joe McDaniel, and



Magnolia × *veitchii*. Photo Gene Eisenbeiss.

Sir Peter Smithers, plus a few from Treseders, Hilliers, and local friends. We are very slowly getting these propagated and onto our sales lists.

The *M. campbellii* group is the hardest for me to propagate and I have not had much success with spring grafting of dormant wood in recent years, but seem to do much better with summer grafting. I have an unavoidable staff shortage at summer grafting time, which severely limits production. We were pleased to be able to deliver a fairly wide range of species and varieties to our biggest trade customer today (1/6/82) and have cuttings rooted of a lot of other ones, mainly the older Greshams and some of the newer 'Picture' offspring from Smithers.

When I first joined the A.M.S., I made some pollinations with the idea of sending seed to the seed counter, but magnolia seed ripens here in March and April, and by then the Seed Counter has finished its distribution. Rather than waste the seed, I ended up sowing some *M. liliflora* × *M. liliflora nigra* seed myself and out of the 50 plus seedlings I got two dwarf or miniature plants with small (two-inch) leaves and thin stems. One flowered last year with three-inch dull purple flowers. I call it 'Mini Mouse,' but don't know yet if it is worthy of commercial introduction. I intend to cross it with both its parents, both ways, to try for some really tiny plants,

and to try its fertility with other species. Some of these *M. liliflora* seedlings bloomed in summer when only 18 months old, so impatient breeders could raise several generations of these in the same time as one of most other species.

I made a few crosses with *M.* × 'Iolanthe' a few years ago, and had a nice one bloom last year from a 'Lennei' cross. The plant was small, and had only two blooms, but they were much like a darker 'Iolanthe' and bloomed very late. This would probably be the hardiest of my selections so far. *M.* 'First Flush' sprouts and flowers very early and 'Star Wars' holds its leaves quite late, so they may not be satisfactory in the northern United States.

A few years ago I tried to self *M. denudata* to see if it would breed true from seed. I found that the clone I had was largely self-sterile and finished up with three seedlings, one of which was



Magnolia × *soulangiana* 'Lombardy Rose.' Photo Gene Eisenbeiss.



Magnolia hypoleuca × *virginiana*.
Photo Gene Eisenbeiss.

obviously a hybrid. Another bloomed with small, poorly shaped white flowers, having thin sepals like *M. liliflora* or a form of *M. kobus*. This made me wonder if *M. denudata* is a true species after all, or is itself a hybrid.

Several years ago I read an article by Phil Savage about crossing *Michelia doltsopa* with *Michelia figo*, the latter being the pollen parent. I decided to try the cross here, and got a large cone of seed on my first try. I got 30 seedlings up, but at one year potted them all up into planter bags of about 1½ gallon capacity. These suited the more vigorous plants very well, but a number of small bushy plants faded away and died. There was quite a lot of variation among the survivors, two or three having leaves nearly as large as *M. doltsopa*, while several had small leaves and were much slower growers. They (the survivors) are coming up to three years old and two have some flower buds on them already. These

have smaller leaves than the average, but are among the largest plants, at about six feet tall. They are still in their containers. I find the plants of this cross root very easily from cuttings and I aim to use cutting-grown plants as understocks for grafting *M. doltsopa*, which is usually layered hereabouts with not entirely satisfactory results.

We have three cultivars of *Michelia doltsopa* in the trade here. The first clone distributed in N.Z. has smallish, pointed leaves and takes about seven years from layering to bloom. The second is a clone now called 'Silver Cloud,' which has larger, more blunt pointed leaves and is "instant blooming," with somewhat larger flowers than the first. Both these forms have flowers with a good lemony scent. The third clone is one of which Felix Jury at Waitara has a very large tree, and it has long, pointed leaves, larger than the first clone, and its young leaves have a brown scattered tomentum on the backs. The scent of its flowers is less strong and lemony, but it is also "instant flowering." Perhaps it is a natural hybrid, or intergrade with *M. velutina*, which is said to grow in the same areas as *M. doltsopa*.

I have a plant of *Michelia compressa*, bearing tiny flowers that are scented, but otherwise are a bit of a joke. I got scions from a young tree of *Michelia champaca* at Auckland two

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