

THE RHODODENDRON NEWSLETTER

JULY 2012

Published by the
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2012 PROGRAMME

NB The Rhododendron Newsletter will be produced quarterly this year. Issues will be sent out by email or post in January, April, July & October. Contributions would be greatly appreciated.
Committee meetings will be held at 5.00pm before General Meetings & as necessary.
General Meetings are held at the Municipal Horticultural Centre, Jolimont Rd, Vermont. Mel 62 G4 unless otherwise stated.

FOUR GENERAL MEETINGS AT NUNAWADING: 3rd Friday 8.00PM

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| <ul style="list-style-type: none">• MARCH 16TH• JUNE 15TH | <ul style="list-style-type: none">• SEPTEMBER 21ST• NOVEMBER 16TH AGM |
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FOUR WORKSHOPS AT THE NATIONAL RHODODENDRON GARDENS; 2.00PM

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| <ul style="list-style-type: none">• FEBRUARY Sunday 19th• MAY Sunday 20th | <ul style="list-style-type: none">• AUGUST Sunday 19th• OCTOBER Sunday 7TH |
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AUGUST 2012

SUNDAY 19TH 2.00PM National Rhododendron Garden. Workshop to pot up rooted cuttings put down at the February workshop.

SEPTEMBER 2012

FRIDAY 21ST 8.00PM General Meeting at Nunawading. Plant Hunting Expedition members will report on their findings in the Tropical Queensland mountains.

OCTOBER 2012

NEWSLETTER

SUNDAY 7TH 2.00PM National Rhododendron Garden. Workshop

FRIDAY 19TH – SUNDAY 21ST NATIONAL COUNCIL AGM AND GARDEN VISITS AT EMU VALLEY RHODODENDRON GARDEN, BURNIE TASMANIA. ALL WELCOME.

NOVEMBER 2012

SATURDAY 3rd -TUESDAY 6th - RHODODENDRON SHOW . Assuming a Manager !
FRIDAY 16TH 8.00PM AGM AT NUNAWADING

PRESIDENTS REPORT JULY 2012

This Presidents Report outlines some of the activities taking place at the Olinda Gardens, within the Society and being carried out by the committee.

The Gardens are looking lovely at the moment. All the good rain we have had over the last couple of years has led to strong growth and I am looking forward to a bumper flowering season. The years of work on Tuesdays by Elizabeth, Prue and Alan have the rock garden in very good shape. While the planting work of Laurie, Michael, Alan and Tom continues to improve the garden. The Parks Victoria staff, especially Wally, Dan and now Tex led by Glenn are doing a terrific job and are very supportive of what the ARS are doing. The current relationship between Parks Victoria and the ARS is very cordial, co-operative and constructive. This makes any time spent in the garden a great pleasure.

We have just about emptied the Vireya House and will start re-cladding with clear polycarbonate in the next few weeks. The propagation house, up in the nursery, mostly seems to be working well, we have had to make some minor changes (as you would expect) such as adjusting the humidity level, changing the fan position and we will add supplementary lighting over the seedlings.

The nursery had become a problem over the last few years, with the plants growing poorly, no overall knowledge of what was there and no real objective behind what was grown. Fortunately Alex Pottage, a very hard working volunteer, has agreed to manage the nursery and in the few short weeks since she stepped into the role she has made an enormous difference. We will now know what we have got and it will be grown a lot better. It now remains for us to determine what should be grown. Any members with plants on their want list or suggestions as to what we should grow can contact Michael Hare or myself. Better still, there is room in the propagation house and we encourage members to make use of it.

The laser engraver, which is shared between ARS, Parks Victoria and Tindale Gardens, has been installed in the lunchroom (no easy task given that it is bigger than the doorway). This will enable signage to be made and much better and more permanent labels to be made for nursery stock and plants in the garden.

Members of the committee have put a significant effort into consolidating the library in one spot, at Olinda, instead of having it spread between Nunawading and Olinda. The books are now housed in glass-fronted cases in the lunchroom at Olinda and journals are arranged in open bookshelves. Sorting through the books and magazines highlighted what a wonderful collection the Society has. The task however was somewhat frustrating, with so many fascinating titles and articles to read, but we had to push on and finish the sorting. The result is a much more accessible collection with the full array of material presented where it can be seen. The upshot is that the library borrowing book, which previously would have a few entries each year has had a couple of dozen in the past month or so. The library is open every Tuesday and whenever an ARS event is on in the Gardens.

Thanks mainly to Simon Begg's hard work and persistence the plans for the Rhododendron collecting expedition to North Queensland are progressing well. The ARS Victoria Branch

has invited and is providing some support to Dan Macleod one of the horticulturists at Olinda to come on the trip. The Chief Executive of Parks Victoria was thrilled that such an opportunity could be presented to a member of their staff. We of course are very pleased that Dan can come we are sure he will make a significant contribution to the expedition.

There is, sadly one negative note. The ARS 'scientific' permit application was refused, despite, at every stage along the way our being led to believe it would be granted because ARS failed in the assessor's view to satisfy the description of a research institution. The application needs to be reframed and, perhaps, made in association with a university, botanic garden or herbarium. Meantime this year's expedition will accomplish much by way of experience in local collecting conditions and the descriptive elements of the local rhododendron populations. And, hopefully an acceptable permit will come through in time.

As you can see there is a lot going on within the Society, most of which should interest, please and even excite its members. (See map page 18)

John O'Hara

NATIONAL PRESIDENT'S REPORT FOR JULY 2012

Some members of the South Australian Branch recently attended a Convention in North Carolina, USA, with various other side trips, and we look forward to hearing about these trips at future meetings and in *The Rhododendron*.

The prospective trip to Queensland, hunting for *Rhododendron lochia* and *viriosum* is gaining considerable momentum as there will possibly be 15 participants. Two PhD students from the Tropical Herbarium may accompany the members. A Tele - conference was held on the 3rd June to nut out some important logistics. The permit application from the Queensland Department of Environment and Resource Management is under way. Sadly the initial 'scientific' application was refused in the last few days despite our being led to believe it would be granted. The application now needs to be discussed with the Queensland authority and, possibly, reframed in terms that will be granted. We still hope it will be finalised soon. It now remains for all participants and would be mountain climbers to see to their physical and aerobic fitness. There has been some media interest, both radio and print, and also a likelihood of TV cover in August for the ABC "7.30SA" program which may or may not go national. My thanks go to all those who have assisted so far with the permit application process and planning to date.

Jacki and I will be driving north to meet participants of the Rhody hunting expedition from late August. Until then, I will be busy with preparations as will Simon and Marcia, who are leaving for their travels in July. Consequently there won't be a President's Report until after the expedition which is happening during the first two weeks in September. Depending on internet cover, some information may be disseminated before October. We hope that there will be plenty of good exciting news in October and at Convention at Emu Valley, Burnie in Tasmania, on the 19th, 20th and 21st October. See you all there.

Rob Hatcher (National President)

THE SPECIES COLUMN.

***Rhododendron morii* -Subsection Maculifera. [photo page 15]**

Rhododendron morii is one of the finest species in the *Rhododendron* genus. It forms a sturdy shrub and is reasonably resistant to frost or sun, and is generally free-flowering. In the best forms the plant is covered in trusses of pink and white flowers.

Name:

Named after U.Mori, a collector in Taiwan.

Distribution:

Grows abundantly in Taiwan in mountain ranges at 1650-3500 metres, generally in conifer forests. It sometimes hybridizes naturally with *pseudochrysanthum* and *pachysanthum*.

Characteristics:

Grows up to a height of 10 metres but usually less in cultivation. The leaves are dark green and smooth on both sides and can be easily distinguished from *pachysanthum*, with dense woolly indumentum, and *pseudochrysanthum* which has indumentum on the lower midrib. The flowers are borne in trusses of 5-15, usually white, but the best forms are flushed pink with a crimson blotch.

Selected Forms.

Award of merit 1956, flowers white, blotched and spotted crimson.

Award of garden merit 1993.

Where to See These Plants:

In 1970 the *Rhododendron* Society subscribed to a plant collecting expedition "The Taiwan Venture", and received seed collected in the wild. After germination and growing on we were able to plant out over 100 *morii* species. At least 17 of these have been recorded in the GPS survey, mostly in the Maddenia Walk area. Most of the remaining species were planted along the Mathias Road boundary, but this area is off the beaten track, and has not been properly surveyed. This will need to be investigated in late October to early November.

There are also a few mature plants at the lower end of the lyrebird walk
Alan Kepert.

VIREYA SPECIES COLUMN

***R acrophilum* [photo page 15]**

Place of Origin:

Only known from a single location, Brooke's Point, Mt Mantalinajan on the Island of Palawan, the Philippines. Described as growing as an epiphyte in dense montane forest at 1725m.

Description:

For a detailed description, see Argent 2006. This description is from plants held in my collection.

Defining characteristics of this species are:

- Much-branched small shrub. My three year old plants (grown from cuttings) are about 40cm high by 60cm wide and has produced about 45 branches, creating a well shaped and compact plant. At maturity it should reach 1m;

- New growth light green becoming darker with age, upper leaf surface shiny giving the plant a 'glossy' appearance;
- Flowers 3-5 in an open umbel, corolla shortly tubular-funnel shaped (20-30mm long x 40-50mm wide), corolla lobes spreading, bi-coloured flowers with a yellow tube and orange lobes, very floriferous and can flower twice a year.

Cultivation and assessment:

Introduced into cultivation in 1992 and into Australia in 2003 (from material collected in NZ), *R. acrophilum* is an excellent horticultural plant. Its compact, much-branched habit, shiny green leaves and bright yellow-orange flowers make it most attractive plant. It also flowers within three years from cuttings, grows quickly, has a good root system and to date my plants have shown minimal signs of foliar disease. These are all desirable characteristics for vireya species and hybrids.

It is ideally suited for pots and hanging baskets. I have not tried it the ground however this may be worthwhile given its good root development.

In the last 1-2 years I've used it as a parent in hybridizing and have seedlings from crosses progressing well. It will however be some years before any of these flower and can be evaluated.

Andrew Rouse

POWDERY MILDEW

I currently have a nasty infection of powdery mildew (PM) on many of my vireyas and decided that something needed to be done. Surfing the Web I was surprised to find there is relatively little information about PM on rhododendrons in Australia and even less for vireyas. Lots about PM on other plants (citrus, grapes, strawberries, roses, cucurbits, etc.) and a little about PM on rhodos in other countries. However, PM is host specific, meaning different fungi infect different plants, so I am not confident advice from other countries or for other plants will be appropriate. Consequently, I assembled a set of info and now think that other rhodoholics might be interested. It is not absolutely comprehensive and it may not all apply to rhodos, but here it is. Please note: I do **NOT** make any recommendations of what anyone else should do. If you are interested, I suggest you do your own search.

PM is probably the most common and widespread plant disease and one of the oldest known to man -- the ancient Greeks described it. Probably every gardener, unless they live in the Arctic or on a high mountain, has witnessed its symptoms: a delicate white-grey felt that covers leaf surfaces and stems, giving the appearance of a dusting with flour. Photosynthesis is impaired, leaves turn yellow or reddish brown, distort, die and fall off. On rhododendrons PM often attacks new growth as well as more mature leaves and stems. Subsequent growth is dwarfed and distorted, often covered with the mildew. It affects a wide range of plants and is caused by many different species of fungi. The RBG in Sydney says that in rhododendrons it is caused by the fungus *Microsphaera penicillata*. An important issue is to

be able to distinguish between PM and Downy Mildew (DM) which is another, and somewhat similar, fungal infection that can affect rhododendrons. (example page 15)

PM characteristics: Light, powdery growth covering shoots and leaf surfaces. Infects plant tissue by sending hollow tubes from a spore on the leaf surface into the plant to suck out nutrients. It spreads in a radius from the point of infection and, after about four days, its own spores start forming, produced in chains on upright stalks. The spores are what actually give the powdery effect. PM may survive from season to season in infected buds and unlike most fungi, PM spores do not need abundant water for germination. PM infection starts when plants are stressed, such as when grown in crowded or shady locations without sufficient air circulation. Airborne spores can spread very quickly, from a single infected leaf to an epidemic within 3-4 days, with spores produced on the leaf surface (particularly young green tissue) within as little as 60 hours after initial infection. Wet weather and very hot, dry weather do not favour PM.

DM characteristics: DM differs from PM in a number of significant ways. Unlike PM, which appears on both sides of the leaf surface, DM develops primarily on the undersides of leaves. The tops of leaves will have yellow blotches, while the undersides develop a faint frost of grey, white, blue or violet fuzz. Under humid, cool conditions, spores appear copiously on the lower surfaces of leaves, growing in tree-like formation on branched fruiting structures, unlike the PM spores which are produced in chains. In the presence of water from a recent rain or fog, the spores will germinate within 4 hours and sporulation on leaf surfaces may occur in 3 days under ideal conditions of 18°C temperatures. Below 4.5°C the spores won't germinate and they're killed by exposure to 26.5°C temperatures for 24 hours, so dry winds and warm, clear days inhibit spore production. Unlike PM spores, which are spread by the wind, DM spores are spread by splashing water.

Recommended Strategies: There are three broad strategies recommended for PM. (i) Prevention of infection. (ii) Treatment with contact fungicides to prevent infection and kill fungus already present. (iii) Treatment with systemic fungicides to prevent infection and provide a cure if it is already present.

(i) Prevention: The most frequent recommendation for PM is that prevention is better than treatment it after it is established. Important steps are to grow resistant cultivars and avoid conditions of high humidity. For example, avoid planting in shady areas and prune away all vegetation that limits air circulation. Do not over-crowd the plants and do not use overhead irrigation late in the day. All infected plant debris should be removed to reduce the amount of fungus available to infect other plants. Plants with a severe infection should be monitored closely the following spring so that if infections reoccurs, they can be treated early. A possible additional prevention strategy is to increase the plant's resistance to fungal attack with the following products.

Silicon: Strengthens plant tissue so it can better resist PM infection. Can be used as either a foliar spray and/or by application to soils. Silicon is considered to provide protection against fungal infection by depositing silicon in epidermal cell walls and stimulating an indirect host defence response. Trials have shown that silicon can delay onset of infection by 1-2 days and reduce the severity of infestation by around 50%.

Soluble silicon is available from hydroponic outlets as potassium metasilicate (K_2SiO_3) and is used at a concentration of 100ppm Si.

SeaWeed Extract: PM is common where plants are deficient in potassium and some trace elements, as when the plants have exhausted their supply of fertiliser or when soil is too dry. Seaweed extract is rich in both potassium and a range of trace elements (including sulphur) and spraying foliage with seaweed tea can be effective against PM, not because it kills the fungus, but because it quickly provides the nutrients plants require to resist the fungus.

Although prevention is good advice it is not particularly relevant when one is building a collection of rare plants or where they cannot be easily relocated to better situations. In these circumstances, the only option is for treatment with a fungicide – but which one? Lots of research has gone into the control of PM in agriculture using different fungicides and there are many new commercial ones available, all with difficult-to-pronounce names. However, very little has been targeted at the backyard gardener for small-scale application and none are specifically targeted at rhododendrons.

Treatments: There is a bewildering array of fungicides available but most are intended for agricultural crops. I report here mostly on the backyard treatments and the few commercial fungicides that are likely to be available through local gardening shops.

(ii) Contact Fungicides: These fungicides are intended to kill the fungus on contact.

Powdered Sulfur (sulphur): Gardening Australia presenter Jerry Coleby-Williams recommended the use of powdered sulfur for PM: *Simply apply over the leaves when they are dry. Reapply after heavy rain. Powdered sulfur is perfectly safe to use and has a long-lasting effect. Don't use it on really hot days as it can burn the leaves.*

Addition information is provided for its use on grape vines (which may/may not apply to rhodos). Sulfur is man's oldest fungicide and to date no fungicide resistance has developed despite centuries of use! Sulfur is cheaper than most other fungicides and works well if sprayed well - best used at the rate 600 g/100L. Because PM grows on the surface of plant tissue, it is killed readily by any contact fungicide active against the pathogen. As a result, sulfur has post- and pre-infection activity; that is, it both kills the pathogen and protects new foliage. Sulfur has effective volatile (fumigant) activity at temperatures $>20^\circ C$ but in cooler temperatures, $<15^\circ C$, this activity is limited. The contact activity occurs at any temperature but for this, good spray coverage of upper and lower surfaces is needed. Sulfur may cause phytotoxicity at high temperatures if high humidity - sulfur in solution is weakly acidic and burns the foliage if, over a long period, the spray solution does not dry. The best time to apply sulfur is on a calm evening after a warm day, allowing maximum volatile action of the fungicide as it permeates the sprayed canopy. A single application with good spray coverage can restrict PM for 40 days.

Lime Sulfur: This is a variant on powdered sulfur and it controls a range of fungal diseases and pests on crops and ornamentals. There is no withholding period. It is considered less toxic, yet provides effective control of PM and other fungal diseases. Best to begin applications early in the season, since sulfur is more effective as a preventative. In subtropical areas it should be used before the high humidity season. It is ideal as a winter clean up spray.

Baking Soda: Concoctions containing Baking Soda (sodium bicarbonate or Baking Powder) are claimed to be effective on a wide variety of diseases and especially PM. It disrupts fungal spores that land on the leaf surface, making them unable to infect the plant. In 1992, a study tested baking soda alone and in combination with oil - baking soda alone was ineffective but when oil was added the mixture became very effective. Besides needing oil, baking soda also needs to be applied at an early stage of infection – or even before you see it – to get the best results. Formulation: add 1 tablespoon of baking soda, 1 or 2 teaspoons of dish soap, and 1 or 2 teaspoons of vegetable oil to 4 litres of water. Baking soda has potential to burn plants, so be sure to test it on a small portion of a plant to see if it is safe. The RBG in Sydney found this to be effective on PM, rust and black spot on roses. So, oil, detergent and bi-carb is all you need for a great preventative fungicide.

For those who do not want to make their own, there are commercial fungicides based on potassium bicarbonate. Eco-fungicide is a proven organic product for treatment against PM, black spot and most mildews in vegetables and ornamentals. It controls disease without damaging the biological balance of your garden (safe for good bugs and bees) with no residual effect. When applied to plants, it alters the pH and the osmotic balance of the leaf surface. This inhibits fungal spores from germinating and growing. It also damages the cells of fungal spores, resulting in dehydration and death of fungi, providing effective disease control. Use 3-4g (approximately 1 teaspoon) per litre of water mixed with 2ml of emulsified vegetable oil.

Milk: In another Gardening Australia webpage Jerry Coleby-Williams writes as follows. *Using chemicals against a disease in the garden, such as a fungicide to get rid of PM, often cause other problems. They can affect beneficial micro-organisms in the soil and can kill pollinators like bees. I like to use milk as a fungicide - organic milk because it contains all the antibiotic qualities necessary to make it work. The mix is 1 part organic milk to 10 parts water. Give it a good stir and it's ready for use. The objective of spraying is to cover every part of the plant, both sides of the leaves and coat the stems. It only works as a preventative, not as a cure. Milk has been proven to work on plants within the cucumber family, it's also good on begonias and effective in controlling mildew on grapevines. Too much milk in the solution will encourage sooty mould, so stick to the recipe; one part milk, 10 parts water. (GP – Jerry seems to think that milk is not a chemical – if it's not a chemical then what is it?).*

Chamomile Tea. It is claimed that PM can be treated with chamomile tea. For each 500 ml of spray required, steep one teabag in a cup of boiling water for 15 minutes, then dilute

to 500 ml with cold water. Remove and destroy severely affected leaves, then spray the both sides of the leaves and stems early in day so that leaves have time to dry before nightfall.

Chlorothalonil: This is a polychlorinated aromatic mainly used as a broad spectrum, non-systemic fungicide, with other uses as a wood protectant, pesticide, acaricide and to control mold, mildew, bacteria and algae. Chlorothalonil changes fungal intracellular glutathione molecules to alternate forms which cannot participate in essential enzymatic reactions, ultimately leading to cell death, similar to the mechanism of trichloromethyl sulfenyl. Sold in Australia with the trade names (among others) of Bravo, Barrack, Unite and Dacogreen.

Copper Fungicides: When formulations of copper are dissolved in water, copper ions are released into solution. Copper ions are toxic to fungi and bacteria because they destroy proteins in fungal tissues. However, because copper can also kill plant tissue, there is a risk of injuring foliage. Factors promoting this injury include: 1) the amount of actual copper applied, and 2) cold, wet weather (slow drying conditions) that apparently increases the availability of copper ions and, thus, increases the risk of plant injury. Copper fungicides have largely been replaced with conventional fungicides that are generally safer to plant tissues and often more effective.

Several terms are used when discussing copper as a fungicide. The original material used was copper sulfate. When combined with lime in French vineyards, the combination became known as Bordeaux Mixture.

Bordeaux Mixture: It has a long residual action and has been used for years to control many diseases, including DM and PM. It can be made (mixed) on site by combining copper sulfate with hydrated lime. It is also commercially available as a dry wettable powder.

Fixed Copper Fungicides: Following the discovery of Bordeaux Mixture, several ‘fixed copper’ fungicides were developed, which release less copper ions and are generally less injurious to plant tissues than Bordeaux Mixture.

Oils: To eradicate mild to moderate PM infections, use a horticultural oil or one of the plant-derived oils such as Neem or Jojoba Oil. Be careful not to apply an oil spray within 2 weeks of a sulfur spray or plants may be injured and not when temperatures are above 32°C or to drought-stressed plants. Some plants may be more sensitive than others so the interval between sulfur and oil sprays should be longer.

Biological Fungicides: Biological fungicides (such as Serenade) are commercially available beneficial microorganisms formulated into a product that, when sprayed on a plant, destroys fungal pathogens. The active ingredient is a bacterium, *Bacillus subtilis*, that helps prevent PM from infecting the plant. While this product kills the PM organism and is nontoxic to people, pets and beneficial insects, it has not proven as effective as the oils or sulfur in controlling PM.

Mancozeb Plus: Mancozeb Plus Garden Fungicide & Miticide is a multi-purpose, dual-action formulation combining the benefits of mancozeb and wettable sulfur. Both ingredients have a contact fungicidal action, helping to control and prevent the entry and spread of a range of common fungal diseases. Wettable sulfur has the added benefit of providing control of a range of mite species. This formulation is suitable for use on a range of vegetables, fruit and ornamentals. It controls petal blight, PM, rust, dollar spot in lawns and others.

(iii) Systemic Fungicides: These fungicides are intended to penetrate into the plant tissue and move throughout the plant, killing any fungus that is present and preventing new infections. There can be a major problem with this type of fungicide in that the fungus can develop a resistance and the fungicide can become ineffective. There are about 15 different active ingredients and ~65 products registered in Australia for systemic control of PM.

DMI's: Demethylation Inhibitors were developed in the late 1980's and include Bayfidan, Mycloss and Topas. They have translaminar activity, ie. they move across and/or within the leaf and are partly systemic. However, they do not move in the plant's sap in sufficient concentration to be effective beyond the sprayed zone. Topas has a limited volatile action so is the most effective fumigant of the DMI's. The DMI's are single-site fungicides, acting at only one point of the PM biology. As a result, there is a risk of the fungus developing resistance. The DMI's are excellent pre- and post-infection fungicides for PM. They protect the plant and kill the fungus and have potential for use in early season when young shoots are most at risk. DMI's are also valuable tools where spray coverage is limited, but they are more expensive than sulphur. Resistance management strategies recommend that the DMI's not be used more than three times in a season.

Triforine (also called Triforine Rose Fungicide). I pick out Triforine because it is readily available from the large hardware chain (you know the one) and it is targeted at the home gardener. Triforine is a systemic fungicide that is both preventative and curative. Triforine will also treat rust and black spot on roses. It is applied as a foliar spray every 7-10 days while the conditions for PM are favourable. It is absorbed by the sap stream and transported to all tissues throughout the plant where it destroys diseases already present and prevents new diseases from entering. Triforine can be toxic (Poison schedule S5-caution) so care and appropriate equipment should be used, even though commercial promotions claim it is environmentally friendly and safe for both people and the environment - a low hazard to beneficial insects and animals. It has a half-life in soils of approximately 3 weeks. Some garden experts recommend adding a wetting agent in with the Triforine to reduce run off and help the Triforine stick to the plant. A cheap way to get a similar (but not as good) effect is to add 2 ml of dishwashing liquid per litre, but a proper wetting agent like the Kenwet 1000 or Agral is by far the best way to stop runoff. They recommend the Kendon brand of Triforine, which was tested by Choice magazine and found to be the best.

Strobilurins: (I am not sure if these are available in small packs for the home gardener in Australia). A relatively new group of fungicides (developed in the 1990's) called strobilurins are used for preventative treatment of fungal diseases, including PM. They have been applied to agricultural crops such as grapes, but may also be useful with rhododendrons. A strobilurin shown to be particularly effective against PM is trifloxystrobin, which in Australia is sold under the trade name Flint. Other trade names for strobilurins are Amistar and Cabio. Strobilurins were extracted from the fungus *Strobilurus tenacellus* and have a suppressive effect on several different plant pathogenic fungi, reducing competition for nutrients and they inhibit electron transfer in mitochondria, disrupting metabolism and preventing fungi growth. Like BMI's, they have translaminar activity, which means they move across and/or within leaves thereby providing control on both leaf surfaces, but they need to be applied with good coverage and dose to compensate for the dilution of active ingredient as it moves within the leaf. Strobilurins are purely for prevention of infestation and have almost no curative benefits, but, as an added advantage, strobilurins also control DM.

A degree of resistance to strobilurins has developed in fungi that affect grapes and cucurbits. Management of resistance is by limiting their use and by using them as a component of an integrated program with other fungicides. Strobilurins should be applied in alternation with other systemic fungicides that have a different mode of action including multi-site contact fungicides that have a low risk of resistance, such as chlorothalonil and copper hydroxide.

That's all folks. I intend using Triforine on my vireyas (which I bought at that large hardware chain) so I hope one day I will be able to report on successful treatment of Powdery Mildew.

Graham Price

VALE: RALPH CYRIL SANGSTER

Ralph Sangster 94, who died May 2012, and his late wife Lillian, were the backbone of the National Rhododendron Garden at Olinda from the 1960's. Ralph was a Life Member. They both had a vision of how the garden should progress. They worked tirelessly to raise funds through progressive dinners, film nights, plays at the Hut in Fern Tree Gully, selling scones and coffee at Olinda to the public, plus many other activities.

Ralph was a Chemical Engineer with I.C.A.N.Z. and spent his retirement devoted to rhododendrons and his music. In summer months he would travel up to the gardens from Canterbury to water by hand the young rhododendron plants. Lillian and Ralph travelled overseas and interstate extensively, including trips to the Himalayas.

He became President of the International Rhododendron Society which required travel to the UK, NZ and the USA to collect ideas for the NRG. His vision included encouraging politicians to be interested in the NRG by inviting them to visit several of the great gardens in the hills. Some of these were Dr Cox's Holly Farm, Rick Coles' Mernda Heights, Ansell's Pirianda Garden and Peter Damman's Morningside. With this type of backing funds were raised to ensure much was achieved in the NRG.

He was instrumental in the concept of the National Council in 1976 bringing together many rhododendron growers from interstate to discuss, socialize and compare ideas. As time passed he and Lillian made several moves but never lost sight of the Rhododendron Garden. Their last move was to Hobart to be near their only son John and his family.

Val Marshall

VALE: RUTH FUNDER (Watson)

Ruth Funder was born in September 1913 and died in May 2012 just a few months short of her 99th birthday. Ruth was a Life Member of the Australian Rhododendron Society Victorian Branch. From the very early days of the society she was involved in the Ladies Auxiliary and like the Sangster's and many other members she helped raise funds for the Rhododendron Garden.

I first met Ruth in 1992 when I joined the Tuesday Volunteer group at the Rhododendron Garden. She and Jean Whitelaw had been coming up from Kew for many years, arriving at 9.00am and leaving at 3.00pm. During that time they propagated, planted and weeded pots and garden beds, often scrambling up the steep slope below the golf course even into their late 80's. I well remember one Tuesday when we had been weeding in the shadehouse and both Ruth and Jean decided some of the elongated plants needed a good prune. Out came the sharp, clean secateurs and many plants were reduced in size by two-thirds! Within six weeks they were all shooting up the stems and from the base. It was one of many excellent lessons I learnt from these two experienced gardeners.

Ruth was also very involved with the Royal Botanic Gardens Friends Group and would often collect vireya cuttings and plants to take to their next meeting. She was determined to spread the news about the advantages and beauty of vireyas for small suburban gardens. Her own garden was an excellent example of this. One of her favourite Himalayan species was *Rh. edgeworthii* as she was a keen believer in the all year round worthiness which *Rh. edgeworthii* displays.

One of the last deeds of the Ladies Auxiliary was to design and pay for the Lyrebird feature in its position with fabulous views across the Yarra Valley. Foliage colour was once again an important feature in the design and Ruth helped in the selection of suitable plants. Her interest in plants was not limited to rhododendrons and I was very privileged to have had many enjoyable and educating talks with her. It was a sad time when she found she could not come on Tuesdays any more.

MNB

ARSV MEMBERSHIP SUBSCRIPTION 2012-2013

Because of the increasing costs of publication of *The Rhododendron* and the *Newsletter* it has been necessary to increase the cost of Membership, however some of the increase has been subsidised by the Society.

In the future, with improvements to the website, both publications will be available to download and it is hoped that this will reduce membership cost for those members who take advantage of this option.

WHAT IS IT ABOUT HUMAN NATURE?

Over the last couple of years I think at least 30% of the large trees have been cut down in the suburb I live in. Some for good reason because of poor tree health and form but some because there is a Human vs Nature attitude in our western society . I think a majority of trees come out because people want to control nature, trees present something that can't be controlled.

WHY ARE TREES REMOVED

Unreasonable fear

My house is cracking, its going to crush our house, it makes a mess. Some of the excuses presented for removing trees. Some may be valid but generally trees cause very little damage but are blamed for it. Moving ground after drought and soaking has caused many houses on poor foundations to crack. Insurance agencies consider trees as very low risk as damage is usually minor generally because trees actually fall slowly and land rather softly because of all the branch and root structure. Unless you are physically under trees for great lengths of time then the risk of limb failure actually causing bodily harm is minimal. Statistically don't ever go out on the road as you are 1000s of times more likely to be killed in a car accident than to be injured by a tree. In fact I would not be surprised if most tree injuries happen because of 'risk reduction or removal' of a tree.

Fashion

Our current backyard blitz mentality forcing our gardens to conform to the inside of the house is very sterile, uncreative and control freakish. Paving, outdoor kitchens etc have a seamless transition from house to garden. I like the extension of the house to the outdoors but I think we are controlling the outside so much that the garden doesn't exist in most back yards. (sorry to all those 'garden' designers).

My gum tree of 40 plus years drops leaves and nuts onto the next door neighbours' pool (built last year) so my tree must go! I am afraid my neighbour doesn't like 'no' so now we have to take their agro because they can't have their 'house and garden'.

Current planning & legislation

In my area we have the state government 10/30 rule. Any shrub within ten metres of the house can be removed without permission. Any tree with 30 meters of the house can be removed without permission. And the shire rule is any tree within 4 metres of a boundary fence can be removed without permission. I have a large block of over 1300 metres square. That leaves a tiny bit in the middle of our property protected from tree removal which is mostly lawn. I would estimate that only 3% of trees in the built up areas are protected in my shire.

How do we benefit

I am probably preaching to the converted in this newsletter but trees are wonderful things.

Sustainability

Trees provide a back bone to beautify any garden, suburb and city. Not as many rave about the beauty of the almost treeless western suburbs as they do about the outer eastern suburbs

where trees of size exist, softening the suburb from an otherwise unrelieved built environment.

Trees do great things for the environment with proven ability to filter and clean particulates (pollution) from the air. Our urban forests do much to make our city liveable.

Government promises artificial carbon capture as our next big hope, an unproven science. We already have efficient carbon capture happening in nature why is it not recognised that our trees have great value bound up within them not just our houses and stuff.

Climate control

Much is written about city heat island and the effect trees have on cooling the immediate atmosphere. Trees provide this same cooling and wind slowing function in our yards. Our neighbours recently removed two large trees on their west side (because they were messy and the house was cracking). I would love to look at the long term effect on their finances' as I am sure their air conditioner will now be much busier every summer cooling their house without that protection from the direct west sun.

Trees are the traditional enemy of roads, a recent study on the effect trees have on roads shows the benefits of cooling and shading by far outweigh the damage done by roots. Heat and sun activate the chemicals used in asphalt weakening the road surface. Studies have shown the cooling and shading by trees extends a roads lifespan saving thousands of dollars.

Eco systems

The neighbours' trees also used to be home to many parrots, with a riot of noise and colour they would roost each night. I hope they are enjoying a new neighbourhood but I am sad to see them go. Another bird Indian Minors seems to have taken up residence since the removal of these trees. I am not sure if the arrival of the Indian minors is a coincidence, but I can't help thinking it has to do with the removal of habitat.

Human Nature

We have a desire to dominate and control it seems that takes very little thought for the future of those who follow us. Our selfishness and independence is taking away from the community many things that are good (not just trees). We all do it.

Our modern society has many factors that add to this, cars, mobile phones and jobs far away mean that often we no longer operate in a local community and have lost that connection.

Yet I think there is hope! I think most of us realise that Plants = Life, even at a subconscious level we want to connect to nature, without gardens and parks we have a sense of unbalance even if that garden is a pot on the balcony we are trying to connect.

As members of a plant society we are able to promote plants and help people to understand plants value for beauty, personal and environmental health and for plants benefit to our communities.

I would hope that as a community the meaning of human nature would become a symbiosis rather than humans versus nature.

Glenn Maskell



Rhododendron morii



Rh. acrophilum in the entrance hall of the Royal Botanic Garden Edinburgh.

R acrophilum

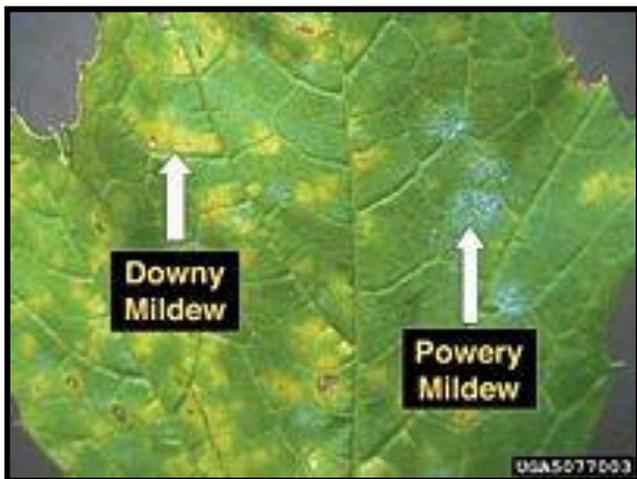
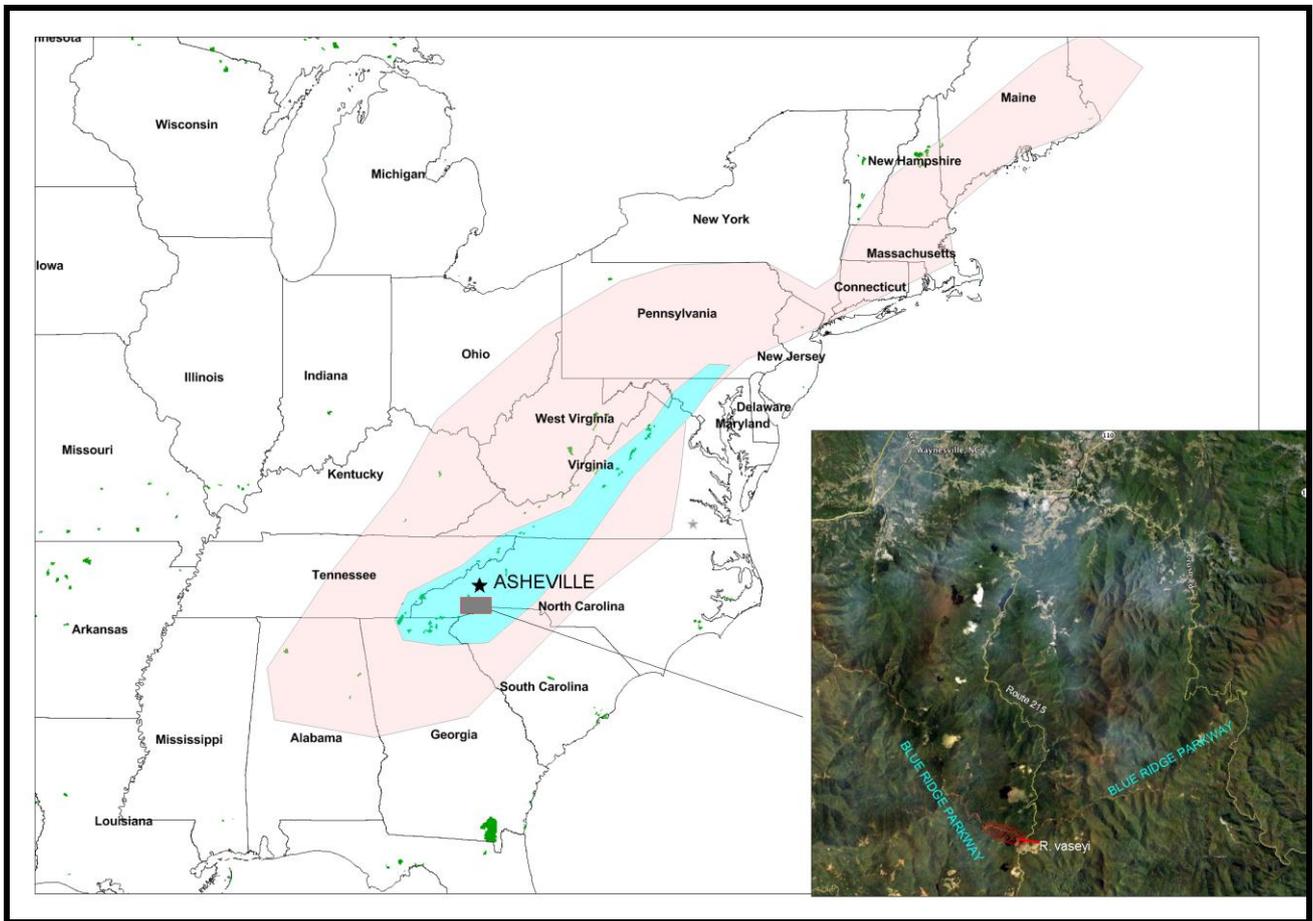


Photo showing the difference between Downy and Powdery Mildew.



Emu Valley April 2010

Above: NRG in autumn (photo by Michael Hammer)
Below: Emu Valley Rhododendron Garden, Burnie, Tasmania.



Above: *Rh. vaseyi* and map of USA showing *Rh. vaseyi* distribution.



Tropical north Queensland where Australia's two vireyas can be found – *lochiae* and *viriosum*. The plant hunting expedition will attempt to climb Bellenden Ker near Innisfail, ride a cable car to the top of Bartle Frere, climb Mt Lewis near Mt Molloy, Bell's Peak near Gordonvale and Mt Finnigan on the Bloomfield track near Cooktown.

Rh. brassii,
 Bottom left: June 2012 flowering at 'Beechmont'.
 Bottom right: flowering in the wild in West New Guinea



REPORT ON THE NATIONAL RHODODENDRON GARDEN, OLINDA

Kenneth Cox, Glendoick, Perth, Scotland

I visited the Dandenongs in October 2010 as I was invited to lecture at the 50th Anniversary Conference of the Australian Rhododendron Society.

The Dandenong Range of hills rising to 700m above Melbourne are Australia's temperate garden and Australia's largest concentration of gardens and nurseries. Few places in the world can boast such a wide range of plant material grown outdoors from such a range of habitats: from high Himalayan alpine rhododendrons to lemons, vireya rhododendrons and other tropical plants. Local nurseries grow trees, native plants, rhododendrons, camellias, cut flowers and bulbs.

The National Rhododendron Garden in Olinda is a 100 acre site, founded in 1960 by the Australian rhododendron society who ran it until it was taken over by Parks Victoria in 1995. Volunteers from the society still put in significant work in the garden. Volunteer work is declining due to declining active membership and some degree of conflict with the new management. Relatively few local members came to the programs of lectures put on at the garden for the conference in October 2010. While I can understand they would not want to go on garden tours, it seems to me that if people are not motivated to come and listen to some significant speakers who rarely come to Australia, then it is hard to know what exactly the 200 local members want their society to do and why are they members of it? Is there anyone they'd come out and listen to?

As well as extensive collections of rhododendrons there is a collection of Japanese flowering cherries and a fine range of trees and shrubs. The upper garden is a Kurume azalea bowl and pond with a spectacular backdrop of giant vertical Eucalyptus trunks. This is an unforgettable sight in full bloom. Lower down are large collections of Australian hybrid rhododendrons, most of which are unlabelled. Recent plantings of Vireya hybrids are not looking all that happy, perhaps it is a little on the cold side up here. The Olinda garden has reached a crossroads and it needs significant investment or it is in danger of serious and irreversible decline.

Olinda Rhododendron Garden: Strengths

This 50 year old garden is mature with spectacular colour from early spring to mid summer and reasonable interest at other times of year. With the now free entrance, they are getting up to 4000 visitors a day in the peak of Spring.

The site is fine with a spectacular backdrop of tall Eucalyptus, an undulating site which lends itself to good vistas though the garden, some excellent design features such as the ponds and spectacular views into the surrounding countryside.

The garden is said to hold the largest collection of rhododendrons and azaleas in Australia, perhaps in the Southern Hemisphere. Emu Valley, Tasmania has a larger collection of species with Olinda having more hybrids. The extensive plant collection is significant for Australia in view of present day importing restrictions. Cultivars from around the world may no longer be imported into Australia except in vitro and seeds are subject to restrictions. There are many taxa/cultivars in the garden at Olinda which are probably not found in other Australian collections.

The site is large enough for considerable additional infrastructure and development in future. A greenhouse for *Vireya* rhododendrons has been proposed and would be a good idea as the garden is fractionally too cold for vireyas to be grown in the open. I would actually advise a shade house as a better option, cheaper, easier to maintain and not requiring 7 day a week supervision, which a greenhouse would. The shelter of a shade house would provide a few degrees of frost protection and shade on hottest days.

The NRG, Olinda, Potential Conservation Role

NRG, Olinda: A Potential Site for significant *ex situ* Conservation of Rhododendrons and other genera

Major Threats to Plant Diversity: It is estimated that there are 270,000 plant species in the world, and one in eight are threatened with extinction. Humans are the main cause of extinction and the principle threat to species at risk of extinction. (*BGCI International*)

BGCI (Botanic Gardens Conservation International), based in the UK, has over 700 members in 118 countries including 18 gardens in Australia. BCGI's aim is to ensure that the world's plant species are protected from the many threats facing them today. BGCI members encompass everything from large botanic gardens of international importance to individuals who are interested in gardens. BGCI is drawing up a red list of plant species whose status is threatened in the wild. I am involved in the publication of an up to date rhododendron list. Many of the most threatened rhododendron species in the wild are from low altitude habitats where forest cover is disappearing and population growth threatens and that rhododendron habitat is most under threat in Laos, Vietnam, parts of Yunnan and southern Sichuan, China and Nepal as well as *Vireya* country in Malaysia, New Guinea and Indonesia. The Dandenongs and Tasmania are ideally suited to provide *ex situ* conservation for many threatened rhododendron and azalea species which thrive outdoors here. Many of the low altitude species are poorly represented or not represented in North American and European collections as they are not hardy enough to be grown outdoors. Some examples include species from low altitudes such as *R. arboreum* and its forms, Sections *Chionastrum* and *Azaleastrum*, subsections *Maddenia* and *Irrorata* as well as section *Vireya*. The conservation and educational roles of gardens are seen these days to be major rationale for investment. I would suggest that the Olinda Rhododendron Garden and Emu Valley, Tasmania should be

considered at sites for conservation collections and that the two gardens should co-operate fully in leading the conservation priorities.

Examples of garden (ex situ) conservation projects:

International Conifer Conservation Programme (see RBG Edinburgh) and the iCONic project (Internationally Threatened Conifers in our Care)

Jade Dragon Field Station & Lijiang Alpine Botanic Garden, China, set up in partnership with RBG Edinburgh.

Rhododendron Species Foundation, Tacoma Washington.

Issues and Problems at Olinda Rhododendron Garden which need to be addressed.

- 1. Management by Victoria Parks.** The political dimension to the running of Parks in Victoria, where rival political parties have differing ideologies as to what parks and gardens are for and how they should be run, does not provide a good framework for the long term stability and future of a garden. Gardens need consistent and on-going finance and management. I'm not convinced that the current parks management have the skills required or the motivation to manage or market a garden of this type. The rhododendron garden needs to be viewed as a place ripe for significant investment as a visitor attraction and not just as a place to maintain with the minimum staff available. The garden is currently in a state which could be rescued and made into a garden of international significance. But equally the current poor maintenance and lack of labels mean that it could equally well deteriorate into nothing more than a decorative public park. One example of unacceptably poor maintenance this year were beds of rhododendrons were sprayed and killed by weedkiller, applied without supervision by someone who clearly had no idea what they were doing. The Olinda garden's pre-eminence in Australia may already have been overtaken by Emu Valley in Tasmania which has a more extensive collection of species rhododendrons and better labelling.
- 2. Season of Interest** Is a rhododendron garden with a spring season of interest enough? Should it try to be a garden with at least 6 months of spectacular displays? Does the garden need to widen its collection to include summer flowering plants such as roses?
- 3. Staffing Levels.** The present staffing levels in the Rhododendron garden are clearly not adequate to maintain a top class garden in this size, even with significant volunteer labour which in any case is decreasing. 3 permanent staff cannot look after a 100 acre site without significant compromises being made.
- 4. Free Entry** Victoria Parks 2010 'free entry' is clearly a politically motivated decision. Even if visitor numbers increase, garden revenue is down. There is still a need to staff the entrance. So this is a double financial blow. At very least all visitors should be persuaded to make a 'minimum donation on the way in our out of \$4 or so.

And it should be clear what this donation is spent on. A named member of staff would be a good incentive. *'Your donation today pays the wages of *** who loves the gardens and keeps them to a standard we can all enjoy'*.

- 5. Size of the Garden.** The garden site is probably larger than it needs to be. It would be more sensible to 'do less better' rather than to try to look after such a large and spread out site. I made 3 visits to the garden in 2 days and did not manage to see it all. Few visitors have more than a couple of hours to spend. I would consider abandoning some sections of the garden and allowing them to return to bush habitat. Scaling down the intensively cultivated areas would mean fewer plants better looked after. Some of the best rhododendron species are in the furthest corners of the garden. Few people ever see them.
- 6. Labelling** Getting the collection labelled and mapped is an absolute priority. The current labelling is amongst the poorest I have ever come across in a garden of this scope and ambition. The knowledge required to do this lies with some elderly members of the rhododendron society. If the collection is not labelled and recorded then I see very little good reason for the garden to continue to be maintained as anything more than a public park. Without this the whole *raison d'etre* of the garden is lost. I cannot stress this strongly enough.
- 7. Sharing the Garden** It has been suggested that the garden could be shared with other organisations for display purposes: the Camellia Society for example. The 10 acre Ferny Creek Horticultural Society garden already fulfils part of this role for many plant interests so it would be important not to compete directly with them. There is certainly space in the garden to add additional features but this would require additional manpower.
- 8. Change status to a Botanic Garden?** It has been suggested that the garden might apply to become a botanic garden. The traditional role of a botanic garden as a place for 'botany' is now outmoded. Botanical gardens now are places of conservation and education. The term 'botanic garden' is off-putting to some potential visitors. There is no official organisation that grants 'botanic garden status' so in theory you can just say that you are one. But in terms of unlocking funding, there are various organisations which require accreditation by reaching minimum standards of horticulture, labelling, record keeping and education/conservation values and achievements.

For any 21st Century botanic garden to be properly funded, a clear and relevant mission statement and practice should be adopted. Two examples of high profile gardens are given as good practice.

RBG, Edinburgh:

‘A world-renowned centre for plant science and education, exploring and explaining the world of plants for a better future’.

RBG Melbourne:

Vision: To be one of the world's outstanding botanic gardens.

Mission: To advance knowledge, enjoyment and conservation of plants through excellence in biodiversity research and management, horticultural displays and educational programs.

To consider becoming a botanic garden, the Olinda garden would need

- A mission and vision as to what the garden is.
- An authenticated and fully labelled and mapped collection of plants
- A collection policy which relates to the vision and mission
- A conservation role.
- An education role in schools, higher education and continuing education.
- A substantial increase in budget, staffing and infrastructure.

And even with all these, in the current financial climate, there is no guarantee that funding would be on-going to allow the standards to be maintained.

9. The Australian Rhododendron Society For most of its existence, The NRG, Olinda has been largely driven by the Australian Rhododendron Society. The rhododendron society is suffering from old age and reducing or inactive membership. Most of the members don't attend events. Unless this is reversed it may cease to exist in the medium term unless it forms strategic mergers with other groups. I think it would be sensible for the rhododendron society members to concentrate their labour on specific sectors of the garden as projects. The Australian hybrid and species collections for example. Let the garden staff take care of the rest. Labelling would be something best done by the rhododendron society, as they have the expertise.

10. Visitor Attraction These days garden visitors expect good cafes, great gift shops, plant sales and exhibitions as part of the visitor experience. This also encourages repeat visits from locals who may or may not visit the gardens at the same time but will certainly use the café and shops if they are good. Currently these activities are barely adequate but potentially could be expanded considerably. There is also scope to be the 'go to' place to buy rhododendrons if there is a market for them, and to do mail order. Local businesses may not be supportive of this if they feel threatened by increased commercial trading, so this needs to be sensitively handled.

Dandenongs Tourism Potential

Clearly the Dandenongs and Yarra valley are recognised as a popular tourism centre with spectacular views over Melbourne and its surrounds, attractive villages and fine walks through native forest.

There are enough first class horticultural attractions here for significant short-stay tourism, particularly in spring but also in autumn. Autumn colour should not be underestimated as a tourism draw as can be seen from Maine in the N.E. USA and Westernbirt Arboretum in Gloucester, England. If the Dandenongs were in North America or Europe, they'd be a larger horticultural draw. Whether such potential exists in Australia, I'm not necessarily qualified to say. But it seems to me that a trick is being missed. Garden visiting generates significant tourism in the Northern Hemisphere. The same people who visit gardens in Europe and North America would visit gardens and look at native flora in Australia where the spring season coincides with the end of the garden season in the Northern hemisphere.

The local tourism brochures indicated to me that the garden/horticultural tourism potential of this area is only partly appreciated. Parks Victoria markets its Dandenongs gardens together in a brochure and website, but many of the best local gardens are ignored as they are not part of Parks Victoria, which is short sighted. Gardens are marketed under www.bluedandenongs.com.au too, but the website is amateur and poor. I could not find any professional consistent marketing for the area's horticultural attractions. These should include gardens, nurseries, garden centres and native plant walks, all branded and marketed together. With Melbourne's 3 million population on the doorstep, the Dandenongs could be marketed as 'Australia's Garden' with a 2-4 week long gardening and plant festival marketed both in the city and elsewhere in Australia as well as internationally. All the local gardens and specialist societies would benefit. The native bush trails and lyrebird spotting as well as the views of the countryside all round gives Olinda and its surrounds a large range of outdoor activities. People who like gardens and gardening generally are also interested in walking, nature and conservation. They tend to be retired and with medium to high disposable income. The two well-known Melbourne botanic gardens are an additional draw to out of state and foreign tourism with RBG Cranbourne in particular having an international reputation. Why not take advantage of Melbourne Gold Cup 'widows' or 'widowers' and offer an alternative to dressing up and watching horses.

Visitors to the Dandenongs and Yarra Valley could easily spend up to a week in spring visiting gardens and nurseries and enjoying the trails though the spectacular bush dominated by the world's tallest flowering trees *Eucalyptus E. regnans*. For Australians, Eucalyptus are so ubiquitous as to be rendered invisible. To those from abroad, they are spectacular and unique trees. There are many fine gardens and Arboreta in the Dandenongs, some publicly owned and some privately. Significant gardens and horticultural attractions include the R.J. Hamer Arboretum, Pirianda Gardens, Alfred Nicholas Gardens, Mt Dandenong Arboretum, Ferny Creek Horticultural Society, Karwarra Australian Garden, William Ricketts Sanctuary and the Tessalar bulb displays.

Sadly I did not have time to visit more than a handful of these gardens due to my tight timetable. Those I did visit included: **Beechmont**, well-landscaped and planted 8 acre garden of rhododendron conference organiser Marcia Begg and her vireya-collecting husband

Simon. This reminds me of a North American woodland garden, carved out of the Eucalyptus forest with beds and large expanses of grass, maintaining an open effect with lots of excellent vistas. Formal elements include a perennial garden created from an old tennis court and a serpentine rill running down to a pond. Plants here had plenty of space and not over shaded vireyas seemed much happier than those a short distance up the hill at the National rhododendron garden. Near by too is **Cloudehill**, which is an ambitious and interesting series of garden rooms in the Hidcote model, well-designed for year round interest from spring to autumn. Very photogenic and ‘designerly’, it would appeal to lifestyle magazine editors. It also has an informal woodland at the bottom, a small garden centre and a café with stunning views down over the garden. In complete contrast is the native plant garden of **Shirley Carn in Monbulk**. Shirley seems to be able to grow almost any Australian native plant with skill and style. I visited with Dr Ben Wallace former director of the Sydney Botanic gardens and he was astounded by the quality of horticultural skills and range of plants Shirley grew. Most of them were new to me and I was particularly taken by the range of *Darwinia*, *Epacris* and *Grevillia* from ground cover to large trees. Like rhododendrons, Australian natives are most Spring flowering, with the unusual flower forms of the Proteaceae and other southern hemisphere families giving a distinctive flavour to the plantings. Private gardens are open under a visiting scheme in the Dandenongs, but again, this seemed only modestly marketed.

Garden Marketing

For garden and horticultural marketing initiatives to work, it is crucial to have the support of local businesses such as transport, accommodation and restaurants, as well as Parks Victoria and the Royal Botanic Gardens, to launch such an initiative. As such business owners need to be brought on board through design of leaflets, websites, ticketing, and familiarisation tours where they are invited into the gardens. Combined weekend accommodation and garden entry tickets should be offered. Private gardens open under an existing scheme and everything needs to be brought under a single branding. The product is good enough, it just needs to be professionally marketed. Gardens are different from other visitor attractions as they lend themselves to repeat visits in different seasons. Unlike a museum or historic house, they are never the same two weeks running. Certainly foreign visitors from the Northern Hemisphere would flock to the Dandenongs for the chance to enjoy a 2nd spring in the same calendar year. Cornwall in England and Argyll in Scotland are two areas which market their garden attractions well and with co-operation with local government and tourism with significant success.

The National Rhododendron Garden Olinda has reached a crucial point in its history. It could evolve into a garden of world wide importance or simply become a colourful public park. Equally there is so much potential in the wider Dandenongs and surrounding area for garden tourism. Whether anyone has the vision and energy required to seize the initiative remains to be seen.

Kenneth Cox Biography

Born in 1964 into a family of renowned plantsmen, Kenneth Cox is grandson of planthunter, writer and nurseryman Euan Cox and son of Peter Cox VMH. Kenneth and his father Peter are considered amongst the world's leading experts on rhododendrons. Kenneth, himself a nurseryman and author of numerous books on rhododendrons, has carved out his particular niche in the world of plant-hunting in



leading 9 expeditions to South and South-East Tibet and Arunachal Pradesh, India, 1995-to the present. He graduated in 1986 at the University of Birmingham, England with a BA in General Arts and a diploma in commerce. Kenneth is widely recognised as one of the leading horticulturalists of his generation in the UK.

Kenneth Cox is an experienced lecturer on rhododendrons, horticulture and plant exploration and has lectured throughout the UK, many part of Europe, North America, Australia and New Zealand. Recently talks have been given at literary festivals, botanical gardens, specialist societies as well as The Royal Scottish Geographical Society and Royal Society for Asiatic Affairs.

Kenneth is managing director of the family firm Glendoick Gardens Ltd in Scotland, a garden centre and mail order nursery specialising in Rhododendrons, Azaleas, Ericaceous plants, Meconopsis, Primula and other plants collected by the Cox family around the world. He is on the Gardens and Designed Landscapes Advisory Panel to the National Trust for Scotland and is involved in the marketing of Scottish gardens. Kenneth is married with two sons and in his spare time plays several musical instruments.

PUBLICATIONS by Kenneth Cox

- *The Encyclopedia of Rhododendron Hybrids* Batsford 1988 (With Peter A. Cox)
- *A Plantsman's Guide to Rhododendrons* Ward Lock 1989
- *Cox's Guide to Choosing Rhododendrons* Batsford 1990 (with Peter Cox)
- *The Encyclopedia of Rhododendron Species* Glendoick Publications 1997, 2nd ed. 2001, 2009 (with Peter Cox)
- *Rhododendrons, A Hamlyn Care Manual*. Hamlyn 1998. Translated in French, Dutch, Swedish, Danish.
- *Riddle of the Tsangpo Gorges* by Frank Kingdon Ward. New Edition, ed. Kenneth Cox, Antique Collector's Club 2001, 2nd revised edition 2007. Short Listed for the Banff Mountain Book Prize.
- *Glendoick, A Guide* Glendoick Publishing 2005
- *Rhododendrons and Azaleas: A Colour Guide* Crowood Press 2005.

- *Garden Plants for Scotland* Frances Lincoln 2008 (with Raoul Curtis Machin) Shortlisted for Garden Reference Book of the year 2008.
- *Scotland for Gardeners* Berlinn 2009 (Winner of the UK Garden Reference Book of the Year 2009)
- In preparation *Fruit and Vegetables for Scotland* to be published 2012

RHODODENDRON VASEYI, AMERICAN ROYALTY AND THE NEW DEAL

North America has about 27 species of Rhododendron, according to the flora of North America, but what the continent lacks in diversity it makes up for in the beauty of the species it has. This is the home of the exquisite deciduous azaleas of the subgenus *Pentanthera*; showy deciduous shrubs with long stamened, slender tubed flowers. The subgenus has about 23 species, 16 in North America and the rest in Asia. Most are in the section *Pentanthera* but the subject of this article, *R. vaseyi* makes up, together with *R. canadense*, the section *Rhodora*.

R. vaseyi A. Gray is known as Pinkshell Azalea in the USA and has the most restricted distribution of the north American species - found only in a few small counties of North Carolina centred on the Blue Ridge Mountains of the Appalachians. The Appalachians are eastern America's Great Divide, extending from southeastern Canada to central Georgia through five Canadian Provinces and 18 US states. The Blue Ridge is the central spine of this complex consisting of a series of ranges from Pennsylvania to Georgia reaching 2,070 m high at Mt Mitchell in North Carolina. Page 17 has a rough map of the eastern USA showing the location of the Blue Ridge and, in the inset, the area I saw *R. vaseyi*.

The Blue Ridge gets its name because it looks blue from a distance this haze being caused by isoprenes, gaseous chemicals released by trees such as oaks and poplars; eucalypts produce it too which helps give Australian bush landscapes their bluish haze at times. For two hundred years the central and southern Appalachians were remote and difficult to access, inhabited by "hillbillies" living traditional lives. The movie "songcatcher" is located in the Asheville/Waynesville area and relates the story of a musicologist discovering folk songs that had not changed since the 18th century (and love to boot). In the 1930's The Blue Ridge parkway was begun under Franklin Delano Roosevelt to connect the Shenandoah and Great Smokey Mountains National Parks and formed part of the new deal stimulus to get the US out of the depression. This huge construction project put a road 755 km long along the main spine of the Blue Ridge from Shenandoah National Park in Virginia to near Cherokee, North Carolina. It took 52 years to complete and is one of the world's iconic roads allowing access to one of the most beautiful parts of North America.

The Blue Ridge is home to many Rhododendrons such as *R. maximum*, *R. minus* (= *corolinianum*) and *R. flammeum*. Thanks to the parkway these are readily accessible from Waynesville and Asheville as well as, I am sure, many other towns.

R. vaseyi has also been known as *Biltia vaseyi*, the genus being named after the magnate George W. Vanderbilt, (Small 1931) a patron of botany and the developer of Biltmore

Estate. The Vanderbilts were (?are) one of the richest families in America during the “gilded age” of the 19th century (Wikipedia) and owned a huge piece of the Blue Ridge centered on Asheville where they built their home “Biltmore House”, still the largest private home ever built in the USA and now open to the public. The Vanderbilts are the seventh wealthiest family in history (Wikipedia again).

Much of the Blue Ridge Parkway in the Asheville region goes through what was once the Biltmore estate, which incidentally also housed the first forestry school in America, now a historic site at the “Cradle of Forestry”, well signposted off the Parkway.

I am fortunate enough to have friends who live outside Waynesville and I have been to see them three times in the last nine months. Each time I saw many rhododendrons but not in flower but my last visit was at just the right time and I was able to search for *R. vaseyi* on and around the Parkway. I found lots of the lepidote *R. minus* flowering as well as the deciduous species *R. flammeus* and *R. periclymenoides* but *R. vaseyi* eluded me until my last day - the 27th of April 2012. Driving to the Parkway along route 215 we crossed over the Parkway and searched along the eastern rather than western side of the range. Just east of the intersection we found dozens of bushes all flowering and of course leafless. They were growing in crevices on near vertical road cuttings the faces of which were soaking with water flowing down them off the ridge. We found more further along the Parkway, this time next to the road and, again, mostly with an eastern aspect. My time spent searching on the western side had proved fruitless. Some bushes were up to two m tall and the species supposedly can get to five m (Bensley 2012)

The literature is somewhat inconsistent about *R. vaseyi* 's habitat. According to Foote and Jones (1994) it grows in “mountain ravines, swamps, bogs, banks of streams, coniferous and oak forests at high elevations (3,000-5,500 ft)”, whereas Weakley (2011) describes the habitat as “moist slopes, bogs, high elevation rocky summits, cliffs, high elevation heath balds”. My observations match the latter. The species seems to like wet feet but the sites I saw them in were all where there was a good flow of water, not stagnant. Where it occurs in swamps and bogs it is likely there is a flow of water.

R. vaseyi 's occurrence on road embankments indicates it is a good pioneer species and likes open areas. Interestingly where I came across *R. flammeum*, it was individual plants in small openings in the woodland or large colonies in big open spaces. Like *R. vaseyi* it might be a good pioneer.

The Centre for Plant Conservation (CPC 2012) describes *R. vaseyi* as being “one of the hardy American rhododendrons, very shade tolerant, also tolerant of soil compaction, poor drainage, and floods. It demands wet to moist growing conditions and strongly to moderately acid soil reaction (4.5-6.0). However, once established, pinkshell azalea can tolerate a wide variety of conditions and even survive droughts.” This may be so, but its natural habitat indicates its preference is indeed wet areas, but open areas with fresh air and fresh water. I would imagine stagnant wet feet would kill it despite the horticultural advice.

CPC (2012) goes on to say that the “flowers are frost resistant, so that it is successfully grown in Scandinavia”.

Page 17 shows the beautiful flowers, in this case pink and white, although a white form is known. The bush itself has a pleasing upright habit. The leaves are supposed to be distinctive and shaped like peach leaves (Small 1931) but I never saw them.

The species was discovered in 1878 by George Vasey, head of the US National Herbarium,. He also has a *Trillium* named after him from the same region.

I cannot say if this lovely species is readily available in Australia or not.

Small, J. K. 1931. *Biltia vasei*. Addisonia: Colored Illustrations and Popular Descriptions of Plants. Volume 16, Plate 525.

Bensley, 2012. Species In Our Midst. *Rhododendron vaseyi* at <http://www.rosebay.org/chapterweb/specvaseyi.htm> (accessed 4/06/2012)

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Foote, L. E. and Jones, S .B., Jr. 1994. *Native Shrubs and Woody Vines of the Southeast*. Oregon: Timber Press.

Weakley, A. S. 2011. Flora of the Southern and Mid-Atlantic States. Working Draft of 15 May 2011. Available at <http://www.herbarium.unc.edu/flora.htm>

Francis Crome

JOTTINGS

DID YOU KNOW?

Birch trees borrow bug repellent. Rhododendrons emit airborne compounds that keep away weevils, moths and aphids. Scientists in Finland found that nearby birches absorbed the repellent in their leaves, later released it, and suffered less pest damage than other birches. It's the first time such interactions have been seen in a forest. *Is it so?*

EXPLORATION in Arunachel Prad-sh India 2009 by John Ray of the Scottish Rhododendron Soc.

This trek was between two mighty rivers and followed the course taken by Frank Ludlow in 1936. This area was rich in seeds in Frank's time but lacked flowers. John Ray assembled a group to go in the flowering time. His travelling partner was held up so John ventured slowly until he caught up. They had guides and porters but suffered from jetlag and exhaustion in the drizzling rain on the terrible Indian roads. They soon spotted interesting plants of *Rh. boothii* and *edgeworthii*. Many rhododendrons were growing on mossy tree trunks including seedlings of *Rh. falconeri* subsection species *nova*.

SOME AMUSING INCIDENTS!

Two elderly women were out driving in a large car – both could barely see over the dashboard. As they were cruising along they came to an intersection. The traffic light was red but they just went on through.

The woman in the passenger seat thought to herself, “I must be losing it. I could have sworn we just went through a red light.”

After a few more minutes they came to another intersection and the light was red again, and again they went straight through. This time the woman in the passenger seat was almost sure that the light had been red but was really concerned that she was losing it. She was getting nervous and decided to pay very close attention to the road at the next intersection to see what was going on.

At the next intersection, sure enough, the light was definitely red and they went right through. She turned to the other woman and said, "Shirley! Did you know you just ran through three red lights in a row! You could have killed us!"

Shirley turned to her and said, "Oh, am I driving?"

A Cunning Senior's Moment

A hunter went on safari with his wife and his mother-in-law.

One evening, while still deep in the jungle, his wife awoke to find her mother gone. Rushing to her husband, she insisted they both go out to find her mother. He picked up his rifle, took a swig of whiskey, and started to look for his mother-in-law.

In a clearing not far from their camp, they came upon a chilling sight. Up against a thick impenetrable bush a large male lion stood facing his mother-in-law.

His wife cried: "What are we going to do?"

Her husband replied: "Nothing! The lion got himself into this mess, let him get himself out of it!"

Another Cunning Senior's Moment

I would like to share an experience with you all, about drinking and driving.

As you well know, some of us have been known to have had brushes with the authorities on our way home from the odd social occasion over the years.

A couple of nights ago, I was out for a few drinks with some friends and had a few too many beers and some rather nice red wine. Knowing full well that I may have been slightly over the limit, I did something I've never done before....I took the bus home.

Sure enough I passed a police roadblock but as it was a bus they waved it past.

I arrived home safely without incident, which was a real surprise, as I have never driven a bus before and am not sure where I got it from! If you know of anybody missing a bus please let me know so I can arrange to return it.

A little something!

My wife and I walked past a swanky new restaurant last night.

"Did you smell that food?" she asked. "Incredible!"

Being the nice guy that I am, I thought, "What the heck, I'll treat her!"

So we walked past it again.

Marcia Begg

GENERAL MEETING JUNE 15TH

'New Guinea and a few of its Rhododendrons' was the topic that kept the members enthralled as the speaker, Francis Crome, described one of his many survey explorations into the highlands. Similar to a feasibility study, Francis and his highly skilled team were designing an environmental and biodiversical developmental plan for gas pipe lines.

Surveys in the New Guinea highlands have been undertaken since 1975. The Muller Range in the middle of New Guinea is extremely remote with no roads and sparsely populated. Teams of scientists and all the equipment needed to set up camp are brought in by helicopter. Camps are comfortable, dry and clean. After an area has been cleared

temporary buildings are erected and include all mod-cons. Buildings are linked by board walks to maintain cleanliness where the area is wet and muddy and a separate building houses scientific equipment. Strict protocols are the rule to protect samples and collect data and long sleeves and trousers are compulsory to prevent malaria. Temperatures are 42-45C, wet and humid.

Twenty to thirty specialists in many fields are in a team including experts in plants, mammals, frogs, insects and birds. There are also geologists, a safety officer, medic, cleaner and mechanic. During every survey many new species are documented. Where there is a nearby village the natives bring all kinds of species to show the scientists. Mammals are the hardest to study but natives often bring tree kangaroos, cuscus, bats and possums for identification.

Camps are set up at elevations from 2,270m to 200m and vireyas can be found from the highest peaks to the coastal regions. Many are epiphytes on trees and rocks especially where the rocks are limestone. At over 3,000m yellow *macgregoriae* and *bayerinkianum* were seen flowering in April among four different species of *Nothofagus*.

At 1,368m on the South Karius Range *macgregoriae* and *bayerinkianum* and *wentianum* were common. On the coast at 200m *englerianum* was growing.

An area is studied for about a week then the packing up begins in preparation for the helicopter to move everything to the next site. The safety officer ensures the packages are the correct weight for the helicopter and nothing is left behind.

Marcia Begg

THE 2012 PROGRAMME

NB The Rhododendron Newsletter issues will be sent out by email or post in January, April, July & October. Contributions would be greatly appreciated.

Committee meetings will be held at 5.00pm before General Meetings & as necessary.

AUGUST

SUNDAY 19TH 2.00PM National Rhododendron Garden. Workshop to pot up rooted cuttings put down at the February workshop.

SEPTEMBER

FRIDAY 21ST 8.00pm General Meeting at Nunawading. Plant Hunting Expedition members will report on their findings in the Tropical Queensland mountains.

OCTOBER - Newsletter

SUNDAY 9TH – 2.00pm National Rhododendron Garden Workshop

FRIDAY 19TH – SUNDAY 21ST NATIONAL COUNCIL AGM AND GARDEN VISITS AT EMU VALLEY RHODODENDRON GARDEN, BURNIE TASMANIA. ALL WELCOME.

NOVEMBER

SATURDAY 3RD -TUESDAY 6TH - RHODODENDRON SHOW to be advised. Due to other commitments and the plant hunting expedition we have been unable to find a Show Manager. If we can find a volunteer to be Show Manager we can assure all necessary assistance. Perhaps we could hold a floral display instead of a competitive show. Please contact the secretary if you are willing to help so we can actually hold the Show.

FRIDAY 16TH 8.00pm AGM and General Meeting at Nunawading. Speaker to be advised.

DECEMBER

SUNDAY 9TH Society Christmas lunch.

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<u>NATIONAL COUNCIL DELEGATES</u>	Marcia Begg and Prue Crome		