The Rhododendron

The Australian Rhododendron Society Inc.

Volume 60

2020

The Rhododendron

Official Journal of the Australian Rhododendron Society

2020 Volume 60

Contents

Front Cover: *R. ciliicalyx* growing in Alan Kepert's garden. See 'ARS members and their rhododendron journey', p. 66.

The Rhododendron, the journal of the Australian Rhododendron Society Inc., is published annually by the Society. Material for publication in *The Rhododendron* is welcomed and contributors are requested to note that the closing date for each issue is August 1.

Readers should note that mention of proprietary products in articles carried in *The Rhododendron* does not imply their endorsement by the Society.

The Australian Rhododendron Society Inc.

Aims

The Society's objective is to encourage interest in and disseminate information and knowledge about the genus *Rhododendron* and to provide a medium by which all persons interested in the genus may communicate and co-operate with others of similar interest.

Membership

Membership of the Society is open to all persons interested in the objectives of the Society upon payment of the annual membership subscription. For further information contact Branch Secretaries or the National Secretary.

Subscriptions

Annual subscriptions cover the period 1 July to 30 June, and vary up to AUD$25 (single member) and AUD$35 (member & partner) depending on the Branch selected. (Branches set their own level, out of which an amount is paid to the national Society). The annual journal *The Rhododendron* is included as a benefit of membership. Overseas members may nominate for affiliation with any of the Branches. The base annual subscription for membership of the Victorian Branch is AUD$35. This covers dispatch of *The Rhododendron* by airmail in the last quarter of the calendar year and other communications by email (if there is a preference for receipt of other communications in hard copy form, an additional subscription amount of AUD$15 applies to cover airmail cost). The Victorian Branch accepts Visa or Mastercard payments. Overseas subscriptions to other Branches may vary from these rates and require to be paid by bank draft or cheque payable in Australian dollars. Contact the ARS National Secretary.

Contact details

Details of local Branches, along with Office Bearers of the Australian Rhododendron Society, are listed on the inside back cover.

Published 2020 by the Australian Rhododendron Society Inc.
Printed by Star Printing, Terang (03) 5592 1496.
ISSN 1448-0662

Editorial

Andrew Rouse

Well, what a year it has been. Who would have thought back in January 2020 that we would spent the better part of the year in lockdown, unable to travel and in many instances, unable to visit or volunteer at the rhododendron gardens around the country. There haven't been many upsides to the year, though I have spent more time at home and in the garden and have tackled long ignored tasks and observed more of the flowering. As I write this in late spring, *R. majus* and *R. polyanthemum* are in full flower, two species that rarely flower for me; I may have otherwise missed them if I hadn't been working from home.

As one of the branch representatives on National Council, I'd like to provide an update on the recommendation from National Council to de-register the Australian Rhododendron Society Inc. Over the last few years, it has become increasingly clear that the administrative burden and cost of running an incorporated body is not warranted and the engagement between the branches can be met with an administratively simpler alternative. Accordingly, National Council recommended to the branches that they seek the support of their members for a motion to wind up ARS Inc. All the branches have voted in support of this motion, so National Council we shortly proceed with the steps to de-register ARS Inc. I would like to stress that this in no way will have any impact on the interaction between the branches or benefits of membership. In fact, I believe that a simpler model will mean that those willing to represent their branch on national matters – organising conferences, production of this journal, inter-branch trips etc.– will be able to do so safe in the knowledge that they can be involved with a minimal amount of time and effort being spent on administrative matters.

In previous decades, ARS Inc has played a pivotal role in coordinating ARS events, and Lesley Eaton, a former member of National Council, provides her reflections on her time on National Council and the achievements of ARS Inc.

We welcome a contribution from Michael Mambrasar and Deby Arifiani with their article on the rhododendrons of the Lake Habbema region of Papua. Here they find *R. glabriflorum*, *R. versteegii* and many other species, and describe some of the threats arising from development in the region.

We meet more of our members in articles written by Denby Browning and Prue Crome. There is a wealth of gardening, horticultural and specialist rhododendron knowledge amongst our membership, with one of the benefits of belonging to the Society is the exchange of ideas and sharing of expertise. One of the members profiled is Victorian Branch member Laurie Begg. I've

availed myself or Laurie's knowledge on a number of occasions. Many years ago, he sorted out why I was failing to successfully propagate deciduous azaleas; his advice was never pot on the rooted cuttings until they have put on their new growth. More recently, he has helped me to identify the 30- to 40-year-old unlabelled azaleas in my mother's garden. We also meet Gordon and Kaye Hagan, who have recently built a vireya house on their block in Hobart, which has had the unintended consequence of giving me vireya house envy!

One of the joys of being Editor is having a line of sight into the exploits of our members, and I hope that in each issue to continue to showcase what our members are doing in their gardens.

Australia has a rich heritage of hybridising rhododendrons with our hybridisers producing over 800 hybrids suitable for our climatic conditions. In his contribution to the journal, Graham Price rightly asks the question "where have all the hybrids gone?" Whilst some of these plants would not have stood the test of time, we are at risk of losing many of the good ones, with fewer being held in private collections and even less offered by nurseries. Whilst gardening is as popular as ever, we seem to be losing plant diversity; if my neighbourhood is any indication, garden upgrades entails a small fortune being spent on hard landscaping with what little space is left for narrow beds stocked with multiple specimens of up to 10 cultivars. Will this be enough to spark sufficient interest so that we have the next generation of specialist plant enthusiasts?

Dr Roger Elliott provides an update on the vireya species collection at the Royal Botanic Gardens Edinburgh including the first flowering in cultivation of *R. mogeanum*, a species described by George Argent and collected on Bukit Raya, Indonesia in 2010. Sadly, George died before seeing it flower in the RBGE collection.

This spring I was struck by the floral display of *R. championae* × *R. ellipticum* growing in my mother's garden, a cross undertaken by my father in the 1970s. I did a couple of crosses amongst the Choniastrum section species in the 2000s and I keep specimens of the crosses in large pots in my garden. The rhododendrons in section Choniastrum are not widely grown and by showcasing some of the hybrids I hope it may encourage other members to grow them as well.

The 2020 conference will be re-scheduled to November 2021 at Emu Valley Rhododendron Garden, and I hope that you are able to participate. More information will be conveyed to members through your Branch newsletter, so keep an eye out for that.

I'd welcome feedback on the articles in the journal and invite you to recommend articles for future journals. The journal is for the benefit of our membership so as your Editor, I'm keen to ensure that we are providing the articles you want to read.

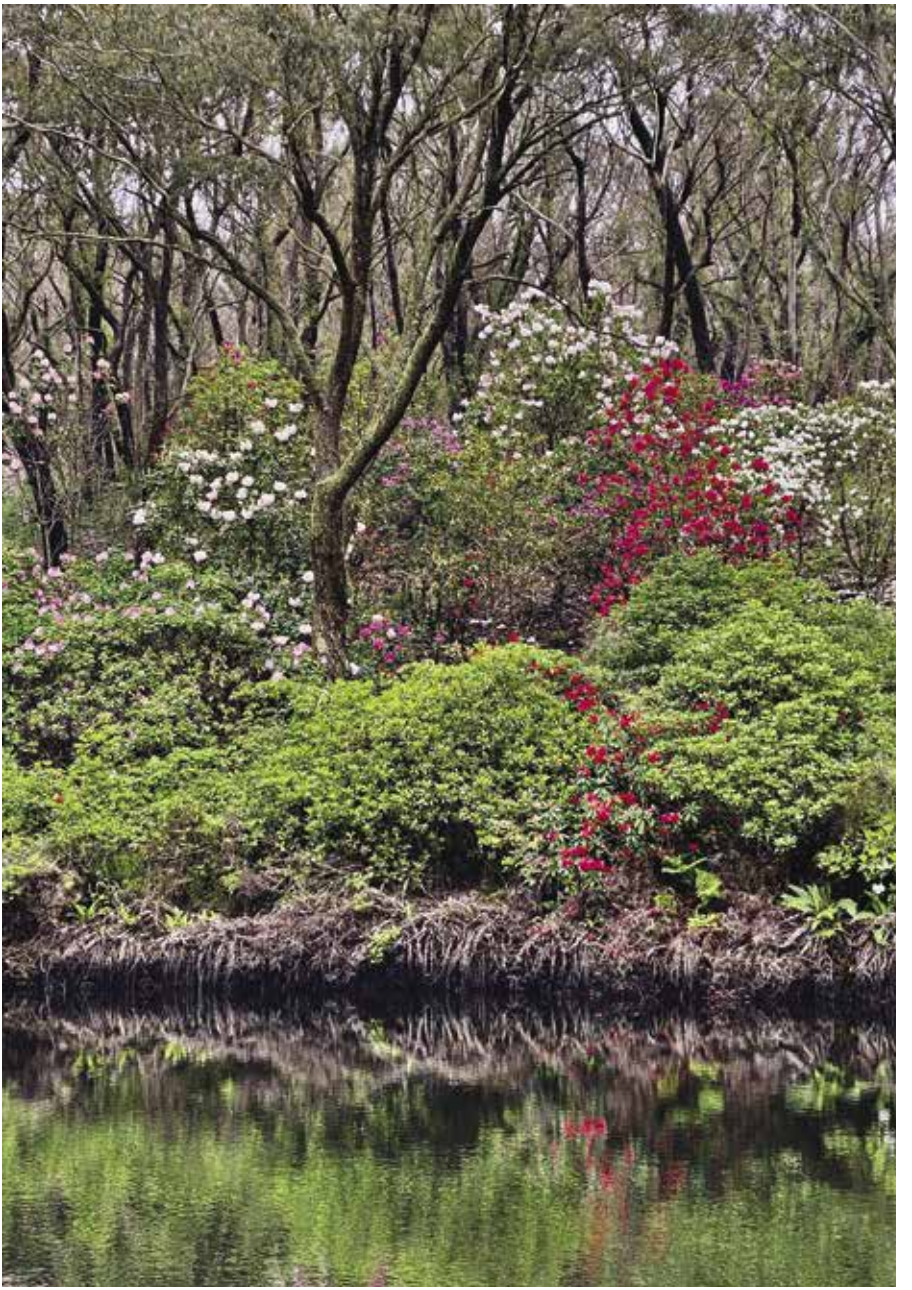
President's Report

Jeff Jenkinson

The membership of the Australian Rhododendron Society has been declining over a number of years which has impacted on the financial viability of the organisation and its ability to promote rhododendron information, culture and support to its membership organisations. 2020 has been an extraordinary year for us all which has led to so many changes in how we relate to each other with social distancing and cancellation of travel plans. Our Society was working with the Emu Valley Rhododendron Garden in Tasmania to arrange and finance the academic program for their planned 2020 conference which has been cancelled and rescheduled for 2021. Funds have been set aside to meet this commitment. As part of the planning of this conference we have developed a good relationship with the New Zealand Rhododendron Society so that international rhododendron society members could be given an opportunity to experience what both countries have to offer by visiting both conferences during a single trip.

In 2020 a poll of our members has been undertaken to ascertain whether a different organisational model would be preferred, such as a Memorandum of Understanding between Australian local rhododendron organisations which would be less costly than the current national incorporated structure with member organisations. It is anticipated that our national organisation, the Australian Rhododendron Society Inc., will become legally dissolved following the poll. I would like to reassure the members of the state organisations that this decision is simply to dissolve an outdated structure and that the interaction between the branches, and the benefits of membership will not be affected. Information on the replacement structure will be put to the state organisations in due course.

I would like to thank the other office bearers of the organisation for their assistance and support over this period of transition. We all have common interest in our love of rhododendrons and hopefully will continue to inspire and encourage new people to join our various local organisations.



Campbell Rhododendron Gardens.

Reports – Australian Rhododendron Groups

Campbell Rhododendron Gardens

On 21st December 2019 the Grose Valley fire entered Blackheath's Campbell Rhododendron Gardens from the north side along the Ridgewell Track. It burned fiercely, destroying all of the native bushland along with the swamp, the species garden, and rhodos along the edges of these areas including the QUOTA Grove and below the Maple Walk. It could have been a lot worse save for the extraordinary work of the RFS.

Prior to the fire, the Gardens were suffering from a year of drought which not only saw the plants in distress but the lake totally dry.

In February this year, torrential rain saw valuable topsoil as well as ash washed away. It was quite a year.

A five-prong recovery plan was developed by the Management Committee so that no area of work would fall through the cracks.

In the months following the devastation, volunteers supplemented by professional teams where necessary, have worked on: **Safety control** – taking down over 100 burned and dangerous trees. Some were rolled into depressions to slow down erosion, others partially left to provide wild-life habitat with others sawn up as free firewood for Society members; **Lake restoration** – a team is currently improving the water channel that feeds the lake to ensure no future water run-off is lost; **Drought recovery** – 'Envy Anti-transpirant' was sprayed onto the leaves of all the introduced species, holes were dug around the drip lines, into which was sprinkled water retaining crystals and filled with water; **Fire recovery** – the native bushland is being left for a year to see what regenerates naturally, before a range of indigenous species from BM Plant Rescue is planted. New plant and walking track labelling is under way and we have engaged the local Men's Shed to build replacement bench seats and wildlife habitat boxes lost to the fires. There has also been **Regular maintenance** including pruning, fertilising, Dodder removal, weed removal etc.

To date there have been approximately 200 new plantings to replace the lost rhodos and to create a new Proteaceae garden.

Our regular volunteer numbers have been swelled on occasion by students from the Boston University (Sydney Campus), and the International Hotel Management School in Wentworth Falls as well as many Blue Mountains residents, all willing to lend a hand where they can.

Several local and federal grants were applied for and received which aided us greatly in covering the enormous recovery costs.

A number of paths are being re-surfaced along with an upgrade to the Lake Walk and we are preparing an area in the valley which, in partnership with Blackheath Rotary, will become a native flower meadow.

Thanks to the exceptional work of all our volunteers, the climate horrors of the last 11 months are behind us; the spring flowering is magnificent and we are looking toward a bright future.

Deb Wells
President, Blue Mountains Rhododendron Society of NSW Inc.

Emu Valley Rhododendron Garden

Had I sat down to write this report back in June it might have been tarred with doom and gloom. We had just come out of the worst autumn period with the garden basically shut down not just from visitors but for a number of weeks for our band of volunteers.

With land slips, blocked drains and general garden maintenance the picture was not bright. The Board and Management Team decided, that despite the heavy financial set back caused by COVID19, that we should still forge ahead. In addition to garden care and our maintenance program, EVRG are going ahead with a major renovation of the Tea Room, planting out from the nursery, major road and track repair, construction of much needed additional storage

Ray Tavner, Life Member, who passed away in 2020.

space, and a rest area for volunteers have either been completed or will still be going ahead as planned. The Rhododendron Conference scheduled for 2020 will now be held during our fortieth birthday celebration year in 2021.

One of our members is putting in a great amount of time and effort to tag all plants in the garden and is on track with the building of the new database. It is so important and is part of our strategic plan.

The database reinforces EVRG's vision to be a world recognised woodland garden showcasing and protecting the *Rhododendron* genus and ensures that the great work we have done over the past decades remains relevant.

Life membership was bestowed upon two long serving members John and Melvie Moore. They have done so much for the garden.

It was a sad few weeks when Life Members John Hudson and Ray Tavner passed away. Many long-term rhododendron enthusiasts will remember Ray as his involvement goes back to near the time the gardens were founded. As I conclude this report Spring is upon us and EVRG is at its best. Visitors from around the State have been streaming in, and all going well, it will not be far off before we again start welcoming interstate travellers.

Our marketing strategy is heavily bent towards getting the message out that Emu Valley Rhododendron Garden is a garden for all seasons.

Geoff Wood
General Manager

Tamborine Mountain Regional Botanic Gardens

In theory, Tamborine Mountain in southeast Queensland is not best suited to rhododendrons. While the Mountain is approximately 550 metres above sea level, west of the Gold Coast, temperatures rarely dip below five or six degrees at night in mid-winter and hover between 25 and 30 on a summer's day. We experience the classic dry winters and wet summers of a semi-tropical climate. Goldilocks for us – neither too hot nor too cold.

As a result, the Tamborine Mountain Regional Botanic Gardens in the Scenic Rim is unique. The surrounding landscape is coastal lowland to the east – the Gold Coast – and lowland farm country in the Scenic Rim to the west.

We have about half a hectare of rhododendrons in the Botanic Gardens, ranging from azaleas to hybrid rhododendrons and, as one might expect, lepidote and elepidote rhododendrons.

After years of struggle with pests and disease, the Gardens' volunteers made a fateful decision in 2017 to take chainsaws to nearly everything in the garden. The azaleas were cut to within half a metre of the ground and the vireyas were heavily pruned. Then we waited.

During the past year the volunteer team, led by Margaret Pile as volunteer in charge of the rhododendron garden and Brian Davison as curator and Roy Bilbie as consultant, has gone on a buying and planting spree, focussed on elepidote rhododendrons and vireyas. The azaleas, having come back to life after their haircut and an aggressive attack of lace bugs, needed little encouragement to put on a spectacular display.

We cleared a few areas that had previously been unproductive, treated the soil and mulched heavily.

In went a range of hybrids, sourced mainly from commercial gardens in

Toowoomba, some 130 kilometre as the crow flies from our home. These included 'Jack's Red', 'Sir Robert Peel', 'President Roosevelt', 'Edit Praed' – a total of 10 varieties.

We followed up with vireyas, including 'Neesa', 'Haloed Gold', 'Magenta' and 'Archangel'. We will see how they all go.

The display this year, which extended from August to early October, has been wonderful. Of particular note, the species vireyas supplied by the Victorian branch of the Australian Rhododendron Society many years back have flowered particularly well this year.

There is a special pleasure in working in the gardens and hearing our visitors compliment us on the colour and brightness of this display.

With plenty of sugar cane mulch, greater knowledge of how to defeat the dreaded lace bug and a reasonable wet season, we can expect 2021 to surpass this year.

Denby Browning, President

South Australian Branch

To say that the events of recent months have been somewhat unpredictable is rather an understatement, with "unprecedented" being the favoured and very apt description. In my previous report I did suggest that 2020 promised to be an eventful year with overseas conferences and associated travel experiences involving several of our members, which meant that we could all look forward to entertaining and informative accounts of adventures abroad. However, that all came to an abrupt and dramatic halt and has sadly meant that our own

Australian conference at Emu Valley in November has had to be postponed until next year, hopefully.

Indeed, since last year's report we seem to have been beset with a number of logistic hurdles which have rendered conducting our usual activities rather problematic. Shortly before our scheduled annual plant sale, notification came from PIRSA placing restrictions on our informal arrangements with Mount Lofty Botanic Garden (MLBG). To be on the safe side the sale had to be cancelled at short notice which came as a rather confronting blow. These PIRSA restrictions also impacted on the delivery of Neutrog Spring orders. As a consequence of these new restrictions a meeting was convened in December between representatives of our committee and Adelaide Botanic Garden senior staff to discuss and establish a more formal "Memorandum of Agreement". This has allowed us to continue sourcing interstate plants for our plant sale through the MLBG plant purchasing process, and also harvesting cuttings for our late summer propagation activity.

The Watermans graciously came to the party for Neutrog order delivery by allowing us to use their property as a base for product collection and consequently spring and autumn distributions of Neutrog products were successfully undertaken.

Ordering and storage of plants for our plant sale also requires considered review but COVID-19 has provided additional complications which has resulted in too much uncertainty and difficulty in currently managing such a process. Hopefully the agreement reached with the MLBG under allowable limitations by PIRSA will mean that once COVID-19 restrictions have eased, enabling across border movements, we can once again consider on-selling interstate acquired plants. In the meantime, we will be depending on our own propagation endeavours to provide plants for sale amongst ourselves and the broader gardening community.

On a more positive note, we have held some successful events, most notably the Grant Memorial Lecture on Friday, September 6th 2019 at the Coventry Memorial Library in Stirling, and also in collaboration with Mt Lofty Districts Historical Society. Our invited guest speaker was award winning landscape architect and garden designer, Jim Fogarty who entertained a captive audience with a fascinating insight into the pressure a garden designer faces to build gardens at world class garden shows. This evening was a great success and a wonderful social event organised by a very competent sub-committee.

Membership for our Society continued to grow last year and I would just like to mention new members, Tina and Wayne Gallasch who are also members of the Friends of Old Government House which is situated in Belair National Park. The Friends have undertaken a project to restore and

establish a beautiful garden surrounding this historic house and approached our Society for advice and possible assistance for including rhododendrons in this project. A casual visit by a handful of members in November 2019 provided a positive and enthusiastic stimulus for future collaboration in progressing this worthwhile endeavour which should be of mutual benefit to both groups.

Yet again, our end of year luncheon was a magnificent feast, this time enjoyed in the beautiful, lush, sweeping grounds of Rob and Carrie Gilbert's property, who generously provided their hospitality to a very enthusiastic and strong representation of members, making for a very memorable conclusion to events for 2019.

More than ever our propagation focus and exploits provide an educational and productive pursuit for members, an activity which, thankfully hasn't been negatively impacted by forces outside of our control. Our agreement with MLBG has meant that we can continue to source cuttings from the hardy hybrid rhododendron collection in the Gardens so that members can continue to produce viable plants for sale and use in their own gardens. Our last activity before COVID-19 restrictions came into force was our annual propagation day, this time hosted by Jeff and Gill Jenkinson at St Vigeans, following on from the cutting morning at MLBG the previous day. The weather was fine, participation was good, and reassuringly included new members who always demonstrate fresh enthusiasm and eagerness to learn and become involved.

As a consequence of this interest in propagation techniques as well as the PIRSA regulations, this aspect of our Society activities has become most important. Luckily, we have generous members in Richard and Bronwyn Illman who willingly share their time and expertise which has become manifested in grafting workshops, seed raising workshops, as well as sharing tips and information on materials and techniques for getting all sorts of propagation projects happening within our membership.

Membership support of our branch continues to be strong, contrary to the national trend for declining membership as evidenced by the National Council. Nevertheless, the recently circulated resolution for the dissolution of the Australian Rhododendron Society is based on sound rationale and validity meaning that there is no real reason for this process not to progress.

The smooth running of the SA branch of the Australian Rhododendron Society is attributed to a dedicated group comprising the executive committee and other members who willingly offer their time and efforts on a regular basis. At our recent AGM a number of committee members resigned and a new committee was elected with a new president and secretary being appointed. As outgoing president, I would like to thank and congratulate new president, Olivera Waterman and new secretary, Lisa Greenstreet. There

are numerous other people who should be thanked but, in particular I would like to acknowledge the amazing job that outgoing secretary, Milton Bowman has done over many years in this secretarial role. I would also like to make special mention of our monthly newsletter as it really is of a high standard thanks to our hard-working editors, Nataliya Popova and Bronwyn Illman as well as a number of great regular contributors.

Bellinda Cullum, outgoing President

Southern Tasmanian Branch

It gives me great pleasure to present the Annual Report (with help from Dorothy Lane).

September found us in Ken Gillander's enchanting garden, where he gave us a fantastic demonstration on how to make hypertufa pots. Ken has made hundreds over the years for the purpose of displaying his many treasured specialty bulbs and I believe he sold these pots at the nursery also. We all dream of having similar cyclamen displays like Ken's.

October was a busy month with a Plant Fair held at Woodbank Gardens. What a mega event it was! Organized with the assistance of Garden Clubs of Australia, it was held over two days, with stalls selling plants or promoting their group's activities. Hundreds of patrons took advantage of this event. Longley has never seen such activity before! Rhododendrons were showcased with a well stocked display of blooms supplied by our members. Harry and Kerry Van den Berg, owners of Woodbank Gardens have decided that this could be an annual event (when the coronavirus has dispersed) and offer free space for garden clubs and those smaller nurseries or other growers who would like to sell their special plants.

Our meeting was held at Fintan Downham's garden on Woodbridge Hill with its spectacular views of the Channel. This garden is rather steep but one gets a good overview from the main building. It was great to see how the garden has matured since our last visit, mainly due to the fact that Fintan has now fenced a large area and no longer shares it with the wildlife. We also had a demonstration by Joy on how to prepare rhododendron blooms for an upcoming show at the Hobart Town Hall. It was the Rose and Iris Show and the first time that we have had a designated section for rhododendrons since our own show finished some years ago. We had a small but impressive display.

November meeting was at Peter and Maruta Boyd's in Kingston. A very large bush garden initially created by Peter's father and where he also ran a nursery. The garden had been neglected for many years and Peter and Maruta have embarked on a major restoration program. We were so impressed with their efforts thus far and look for forward to future visits.

December meeting – I welcomed members to my home in Longley where tables were packed with a delectable spread of food from members. Awards for bloom competitions held throughout the year and ably formulated by Dorothy were presented. Best rhododendrons awarded to Anne Cruise and best Companion Plants awarded to Karina Harris. Ken again compered the plant auction and this all combined to make a very enjoyable event to end the year.

March meeting was again held at Woodbank Gardens with a propagation day – always a popular activity. It was a good opportunity to share cuttings brought by members, especially those rarer ones not found in nurseries these days. Accompanied by the illustration he had prepared, Ken demonstrated the correct methods of propagation.

Due to the de-incorporation of the national rhododendron body, a new name for our society will need to be created.

The coronavirus this year had prevented our planned activities occurring.

Gill and Debbie did invite members to view their gardens, which proved to be an enjoyable exercise – perhaps other members would also like to replicate this concept of opening their garden in the future.

July found us in the Hobart Botanical Gardens' restaurant for our mid-year luncheon where we thoroughly enjoyed delicious meals and catching up socially with members. The special occasion of Ken's 90th birthday was celebrated with a wonderful cake and best wishes from all the members.

In conclusion, I would like to thank all the committee members for their ongoing support and combined with our friendly keen members, I am assured our group will continue to have an enjoyable time together.

Karina Harris, President

Victorian Branch

For the members of the Victorian Branch this was a year for making plans, a year for private activities with household members in your own home, in the main it was a year where trips away from home or social events could not occur. The formal activities of the society after the start of March were limited to a couple of Zoom meetings and work towards planning the North Queensland bed at Olinda.

At the start of the year the Dandenong Ranges Botanic Garden was successful in winning a state government grant. This grant matched and added to funding for the North Queensland conservation garden provided by a very generous bequest from Simon Begg's family and the Ian Potter Foundation. This gives the ARS and Parks Victoria an initial fund of $240,000 to advance the project. The conservation garden, along with the maintenance of a potted

Massive rocks which will become part of the North Queensland conservation garden at the Dandenong Ranges Botanic Garden..

collection of provenanced wild collected *Rhododendron lochiae* and *viriosum*, will be the major contributions by the ARS and Parks Victoria towards a large Australian Tropical Herbarium project on tropical mountain flora conservation. The Australian Tropical Herbarium project is titled "Securing the future of Australia's threatened tropical mountain flora for science and society" (Tropical Mountain Plant Science or TroMPS for short) and is supported by the work of several botanic gardens including RBG Cranbourne and ANBG Canberra.

The planning towards building the North Queensland conservation garden at Olinda has commenced with a team of ARS members, Parks Victoria and RBG Cranbourne staff accepting a tender for the design by Andrea Procter Landscapes. Andrea Procter has had a long collaboration with Andrew Laidlaw and together they have provided most of the landscape design to RBG Melbourne over the last decade or more. Andrea is keen to work with us on this project and was particularly happy with the collection of massive rocks unearthed during a local sports ground development and are free for us to use as landscape features in this garden.

John O'Hara, President

National Council
A potted history from 1976 to 2020

Lesley Eaton

The sixties and seventies were the years of the rhododendron. The nurseries displayed row upon row of tempting plants in full flower and there was a least one rhododendron growing in most gardens. Life was good.

The fledging Rhododendron Society was now in its teenage years, its garden at Olinda in Melbourne's Dandenong Ranges was developing rapidly, and new member numbers were steadily growing.

At this stage there were three branches. Victoria was the driving force, but a smaller dedicated band of enthusiasts in the NSW Blue Mountains was also determined to develop a garden to encourage more people to grow this wonderful genus. So, the gardens at Blackheath were developed.

South of Sydney, around Wollongong in the Illawarra region, an equally dedicated group were intent on showing off the beauty of another side of the *Rhododendron* family, the vireyas (or as they were then known, the Malesians). Enter the Illawarra branch with its fledgling Rhododendron Park.

My earliest recollection of National Council was in 1975 when I was the Victorian Society secretary. Not one committee meeting went by without discussion about unifying the three branches, and as you can imagine, this brought about quite heated discussion. It was also thought that the original constitution, although serving the Society well, now needed broadening. An updated constitution was drafted with the main feature being that the Society branches "be changed to semi-autonomous branches, each with its own constitution and a central body designated as the National Council". These branches would be responsible for the management of their own affairs and elect branch representatives. These representatives would then be the nucleus of the Council with office bearers then dutifully elected. May 1976 saw the adoption of this new constitution for the Society. This then paved the way for semi-autonomous branches with their own local interests, and a National Council who had the responsibility for the activities of the Society at national level. By December 1976 there were two official branches, Victoria and Illawarra. The Blue Mountain group declined the offer to be under the National banner and continued to be a separate entity.

I must admit one of my most precious moments was during a show at Olinda when I was wandering along towards the colour and spectacle of the

nurserymen's pavilion and there, perched rather precariously on fruit boxes, the first meeting of National Council was in full swing. It attracted quite an audience too I must add.

The two branches actively supported the formation of branches in South Australia and Tasmania, and it was not long before there was enough interest for branches to be officially recognised, with the inaugural meeting of the South Australian branch in December 1977.

The first annual meeting of National Council, held at the Log Cabin Restaurant in Olinda, Victoria, was of significance in that the first report of National Council was presented. A tangible benefit arising from National Council states that the Society is starting to think Australia-wide, with the needs of members beyond those based in Melbourne being considered.

By March 1978 it was reported that the number of branches had now officially risen to four with Tasmania having held its first meeting in December 1977. At that first Tasmanian meeting in Burnie, in the northwest of the state, it was noted that there were enough people interested to form a Southern Tasmanian Branch. By the end of 1978 the Society's fifth branch, the Southern Tasmanian branch, was formed.

National Council now had the task of how to increase general membership, and each branch was recommended to have a concerted membership drive. Another initiative was to grow a commercial number of desirable rhododendrons for resale as a fund raiser. The first to be grown to sizeable numbers was the new azalea 'Anna Kerr', then the vireya 'St Valentine' was also offered. The initiative had great merit but unfortunately there was only moderate success in securing new members.

One of the most significant events that arose from National Council was the introduction of National Council weekends, which corresponded with the Annual Meeting of the Society. These weekends were given many names over the years from, conventions, conferences or just plain National Council weekend. It was a wonderful initiative as it brought people, not only from the local area, but from interstate and overseas to see and learn about where and how well rhododendrons grew in different parts of our large country. The first weekend was in Burnie, northwest Tasmania in November 1981.

Unfortunately, the Southern Tasmanian Branch withdrew from the Australian Rhododendron Society in December 1980 but by June 1982, there was enough interest to resume membership, thus bringing branch numbers to six, with three branches in Tasmania – a branch had also been formed around Launceston in the north of Tasmania.

Everything had settled down into routine years with National Council meeting twice a year to address any issue that may have cropped up and

to bring forward ideas for continuing to stimulate interest within the membership. Full international conferences were held, with overseas speakers and wonderful garden visits. This was a great way to showcase our genus and participate in gaining knowledge from these esteemed visitors.

National Council was also instrumental in funding research into the genus. Probably the most significant being expeditions determining more accurately the area in far north Queensland where our native vireyas are to be found.

Unfortunately with the passing of time and with dwindling interest in rhododendrons and their culture, with ever increasing costs involved, the dissolving of branches due to insufficient numbers and the passing of many of the passionate people who wanted to increase their knowledge of the genus, the National Council decided that their days of usefulness was behind them. This brought about the de-registration motion being passed by each branch that will lead to the eventual winding up of our national body, the Australian Rhododendron Society Inc, and the end of an era.

Vale ARS Inc. 1976–2020.

Diversity of Rhododendron species in Lake Habbema, Papua, and its threats

Yasper Michael Mambrasar & Deby Arifiani

Herbarium Bogoriense (BO), Botany Division, Research Center for Biology-LIPI, Cibinong Science Center, Jln. Raya Jakarta-Bogor Km. 46, Cibinong 16911, Bogor, Indonesia.
E-mail: michaelmambrasar.lipi@gmail.com

Abstract

Lake Habbema is considered a center of *Rhododendron* diversity because its geographical position is ideal for the growth of rhododendrons. More than 20 species are found in this region. The area consists of grassland, sup-alpine and mountain forests. Some areas have been damaged by illegal logging and road construction. A study was conducted to determine the effect of habitat damage on the diversity of *Rhododendron* subgenus *vireya* in the Lake Habbema region. The research was carried out by compiling the findings of field work undertaken before and after the construction of the Trans-Papua Highway.

Keywords: Diversity, Lake Habbema, Papua, Rhododendrons, Threats.
4°08'00.8"S 138°40'30.5"E

Introduction

The Lake Habbema region is in the Jayawijaya Regency, Papua Province, Indonesia. Lake Habbema was named after the Dutch officer who accompanied the 1909 expedition, where H.A. Lorentz reached the peak of Trikora. It is at an altitude of 3,300m and located at 4007'00.8"S and 138040'30.5"E. The Lake Habbema region is well known, and particularly with mountaineers who pass by on their way to climb Wihelmina Peak (also known as Puncak Trikora). Many mention Habbema as the lake above the clouds, because it is at an altitude of more than 3,000m. The Lake Habbema region is designated as one of the tourist destinations in Jayawijaya district (Yassin, 2015). Its rising popularity as a tourism destination and its proximity to the Trans-Papua Highway, means the endemic plant species, including the rhododendrons, are at risk from habitat destruction.

Y. MICHAEL MAMBRASAR

Above Lake Habbema habitat of *Rhododendron*.

Below The vegetation around Lake Habbema includes sub-alpine forest, grassland on dry land, swamp meadow, tree savanna, and fern tree savanna.

Y. MICHAEL MAMBRASAR

Vireya is a subgenus in *Rhododendron* (Ericaceae family). Subgenus *vireya* are scaly, the seed has a tail at both ends, the fruit is tapered at the end to the stem of the pistil, and there is no junction between the ovary and pistil (Argent et al., 1988). Subgenus *vireya* has about 366 species and is divided into seven sections with Euvireya section having five subsections (Argent, 2006). Vireya distribution includes China, Bhutan, Nepal, India, Myanmar,Vietnam, Taiwan, Malay Peninsular, Sumatra, Java, Kalimantan, Lesser Sunda Islands,

FARID KUSWANTO

Above Illegal logging near Lake Habbema.

Below Dieback (or shoot death) is a major threat to the forests around Lake Habbema.

Y. MICHAEL MAMBRASAR

Sulawesi, Philippines, Maluku, Papua New Guinea, Australia and Solomon Island (Argent, 2006). The island of New Guinea has high mountains that stretch from Vogelkhop to the west, to the Huon Peninsula (Papua New Guinea) to the east. New Guinea has more species of vireya than other islands in the Malesian region such as Borneo, Sulawesi, Java, Sumatra, and Malay Peninsular, and is a centre of vireya diversity. Unfortunately, the information on the *Rhododendron* distribution in the western region (Papua) is still far behind that of the eastern region (Papua New Guinea) because there have been fewer botanical explorations in Papua compared with Papua New Guinea (Brown et al. 2006 & Kartikasari et al. 2006).

The construction of the Trans-Papua Highway poses a threat to *Rhododendron* habitat. The road passes through the Lake Habbema region, and is making the area more accessible to activites that are causing habitat destruction, that if unchecked, could push the endemic species towards extinction.

Kores (1984) states that one of the problematic aspects of identifying Malesian rhododendrons is determining the subsection of unidentified specimens. To aid with the identification of vireya specimens collected from the Lake Habbema region, the authors developed a key to the Section level, and through herbarium records and field work, listed the species known to be in the Lake Habbema region.

Method

A list of *Rhododendron* subgenus *vireya* in the Lake Habbema region was compiled from reviewing herbarium records and conducting field work. Herbarium specimens at the Herbarium Bogoriense (BO)[1] were assessed, and field work in the Lake Habbema region undertaken in June 2016, where the purposive random sampling method (Rugayah et al., 2004) was used to search for vireyas. From this, a key was developed (see Results, next page), drawing on the classification of vireyas in Argent (2015).

1. Biology Research Center–LIPI, Cibinong, West Java.

Result

In this study, 29 species and one subspecies of Subgenus *vireya* were found in the Lake Habbema region (see Table 1). The key to section and subsection of the vireyas found in the Lake Habbema region is:

1. Scales disk-shaped, the margin entire or nearly so, narrow in comparison to the thick and swollen centres.....**2**

\+ Scales star-shaped or dendroid, the margins dinstinctly lobed or branched, wide in relation to the small, point-like centre.....**3**

2. Corolla short, tubular, not more than 2.5 (–3.5) cm long.....**Section Pseudovireya**

\+ Corolla trumpet-shaped, tube elongate, more than 5 cm long.....**Section Siphonovireya**

3. Scales markedly stalked, dendroid, each from a distinct epidermal tubercle, giving a rough feel to the surface of the leaves.....**Section Hadranthe**

\+ Scales usually sessile, lacking tubercles.....**4**

4. Scales on the undersides of leaves dense, mostly touching.....**Section Albovireya**

\+ Scales on the undersides of leaves well spaced with leaf epidermis clearly visible.....**Section Schistanthe 5**

5. Corolla trumpet-shaped, the lobes less than ¼ total length of tube ....**Subsection Solenovireya**

\+ Corolla not as above.....**6**

6 Pedicels much longer than solitary flowers, low cushion plant.....**Subsection Saxifragiodea**

\+ Pedicel shorter than the flowers, shrub or small tree.....**7**

7. Most leaves less than 15 mm long.....**Subsection Linnaeopsis**

\+ Most leaves more than 15 mm long.....**8**

8. Most leaves less than 40 mm long.....**Subsection Malesia**

\+ Most leaves more than 40 mm long.....**Subsection Euvireya**

No	Section	Species	Distribution
1	Albovireya	*R. correoides*	Papua
2	Albovireya	*R. versteegiii*	Papua
3	Discovireya	*R. gaultherifolium* var. *expositum*	Papua & PNG
4	Discovireya	*R. orietes* var. *chlorops*	Habbema vicinity
5	Discovireya	*R. orietes* var. *orietes*	Papua
6	Discovireya	*R. pulleanum* var. *maiusculum*	Papua
7	Hadranthe	*R. beyerinckianum*	Papua & PNG
8	Hadranthe	*R. cravenii*	Papua
9	Hadranthe	*R. haematophthalmum*	Habbema vicinity
10	Hadranthe	*R. revolutum*	Habbema vicinity
11	Hadranthe	*R. rhodochroum*	Papua
12	Schistanthe (Euvireya)	*R. culminicola*	Papua & PNG
13	Schistanthe (Euvireya)	*R. glabriflorum*	Papua
14	Schistanthe (Euvireya)	*R. villosulum*	Papua & PNG
15	Schistanthe (Linnaeopsis)	*R. caespitosum*	Papua
16	Schistanthe (Linnaeopsis)	*R. coelorum*	Papua
17	Schistanthe (Linnaeopsis)	*R. disterigmoides*	Papua & PNG
18	Schistanthe (Linnaeopsis)	*R. microphyllum*	Papua
19	Schistanthe (Linnaeopsis)	*R. schizostigma*	Papua & PNG
20	Schistanthe (Malesia)	*R. brassii*	Habbema vicinity
21	Schistanthe (Malesia)	*R. flavoviride*	Papua
22	Schistanthe (Malesia)	*R. helodes*	Habbema vicinity
23	Schistanthe (Malesia)	*R. incospicuum*	Papua & PNG
24	Schistanthe (Malesia)	*R. nubicola*	Papua
25	Schistanthe (Malesia)	*R. porphyranthes*	Papua
26	Schistanthe (Malesia)	*R. rubrobracteatum*	Papua
27	Schistanthe (Malesia)	*R. subcrenulatum*	Papua & PNG
28	Schistanthe (Malesia)	*R. subuliferum*	Papua
29	Schistanthe (Saxifragoidea)	*R. saxifragoides*	Papua & PNG
30	Schistanthe (Solenovireya)	*R. majus*	Papua & PNG
31	Schistanthe (Solenovireya)	*R. roseiflorum*	Papua
32	Siphonovireya	*R. agathodaemonis*	Papua & PNG

Table 1: List of rhododendrons in the Lake Habbema region.

Discussion

Rhododendron of New Guinea

The 2nd edition of Argent's revision of vireya, *Rhododendrons of subgenus Vireya*, published in 2015, lists 171 vireya species on New Guinea, with 121 in Papua and other parts of Indonesia, and 85 species in Papua New Guinea. Three new species of New Guinea vireyas have been described in recent years. *Rhododendron stanleyi* S. James & Argent, a new species described by S. James & George Argent in 2017. The species is confined to Yule Mountain, Papua New Guinea (James & Argent, 2017). In 2016, Frederic Danet described *Rhododendron cravenii* Danet from material he collected near the Bele Valley, Papua. *Rhododendron meagaii* Mambrasar & Hutabarat, a new type published in 2018 by Yasper Michael Mambrasar and Prima Hutabarat is only known from its type locality in the Snow Mountains, Yalimo Regency, Papua Province, Indonesia (Mambrasar & Hutabarat 2018). These recently described species increase the number of *Rhododendron* species in New Guinea to 174.

Of the total 174 species known in New Guinea, 18%, or 32 species and subspecies, comprising 5 sections and 5 subsections are found in the Lake Habbema region.

Rhododendron versteegii.

Y. MICHAEL MAMBRASAR

Y. MICHAEL MAMBRASAR

Rhododendron glabriflorum.

Endemicity

Based on their distribution, vireyas in the Lake Habbema region are divided into two groups, those that are widely distributed across New Guinea and those restricted to the western half of the island (Papua). Of the total number of species found in the Lake Habbema region, 37% are widely distributed across New Guinea (Papua and Papua New Guinea), and 63% confined to the Papua region of Indonesia. Importantly from a conservation perspective, five species are restricted to the Lake Habbema region (see Table 1).

Threat

Based on field observations, it is evident that the natural environment around Lake Habbema is under threat. There is considerable infrastructure development in Papua, including the construction of roads to connect the districts and towns across the province. The Trans-Papua Highway transects the Lake Habbema region, an important conservation zone in the Lorentz National Park.

The construction of the Trans-Papua Highway is actually having a positive impact on the economy in the Jayawijaya and Nduga regency. The distribution of goods is getting faster and cheaper as previously, goods had to be transported

Y. MICHAEL MAMBRASAR

Above *Rhododendron brassii.*

Below *Rhododendron inconspicuum.*

Y. MICHAEL MAMBRASAR

W.K. HUTABARAT

Rhododendron rubrobracteatum.

by air. In addition, the access to Papua's remote central mountainous regions is easier. Before 2000, access was difficult and expensive, making it all the more challenging to undertake field research of Papuan biodiversity. The Trans-Papua Highway has opened up previously remote areas, and so facilitated access for scientists conducting field research.

Unfortunately, as suggested by Keim et al (2018), if the construction of the Trans-Papua Highway is not balanced with conservation efforts and AMDAL (Analysis of Environmental Impacts), it will be the catalyst for considerable environmental impact and potentially even the localised extinction of species. Whilst conducting *Rhododendron* surveys for this article, it was clear that the habitat around Lake Habbema is under threat, with land clearing for agriculture and new settlements along the Trans-Papua Highway. Moreover, the road is providing easier access to the surrounding forests, and consequently, illegal logging is increasing. The forest is dominated by the endemic trees *Nothofagus* spp. (Nothofagaceae), and there is a rapidly growing demand for *Nothofagus* timber for use in local construction. Such is the demand, it seems likely that the logging will continue unabated unless controls are put in place to reduce the rate of cutting.

VVK. HUTABARAT

Rhododendron saxifragoides.

This is one of the reasons why the conservation efforts for rhododendrons needs to be prioritised (Wiguna, 2015). The *Rhododendron* species directly affected are those whose habitats are generally along the Trans-Papua Highway, such as *R. inconspicuum*, *R. brassii*, *R. oreites* var. *chlorops*, and *R. microphyllum* (Argent, 2015). Falling trees, access and clearings for logging camps is also damaging *Rhododendron* habitat. Furthermore, *Nothofagus* play an important role as host tree of epiphytic *Rhododendron* species (Sleumer 1960 & Argent 2015), and illegal logging is removing important host trees for rhododendrons and other epiphytes. Keim (2018) found that several locations around Lake Habbema lake had been burnt, and speculated that these fire was caused by the illegal loggers. *Nothofagus* forest is fire sensitive and hot fires are likely to kill the trees and the associated species.

The Lake Habbema region is being more widely promoted as a tourist destination – 'the lake above the clouds' (Anonymous) – and the new roads are making previously inaccessible places easier to access. The regions has beautiful natural scenery and a diverse range of plant communities, from *Cyathia* dominated grasslands through to *Nothofagus* forests. The local government is planning to build a resort to support the growing number of tourist visiting the region (Yewun, 2017). More tourists could lead to negative impacts such as the exploitation of rhododendrons and other plants along with further habitat destruction. For example, *R. saxifragoides*, a slow growing species that forms a dense mat of vegetation, is typically found close to the lake, an area that is particularly susceptible to human disturbance.

In addition to habitat damage caused by human activities, the *Nothofagus* forests around Lake Habbema are experiencing dieback, a natural phenomenon in this area (Johns et al. 2007, Meyers & Hitchcock 2008, Keim et al. 2018). This condition seems to be worse when the forest is stressed, such as during droughts. As the trees die they are no longer suitable habitat for epiphytic species such as rhododendrons.

Conclusion

There are 31 species of rhododendrons distributed in the Lake Habbema region, comprised of 5 sections, 5 subsections, 29 species and 1 subspecies. There is a serious threat to the natural vegetation around Lake Habbema due to human activities such as the construction of the Trans-Papua Highway, illegal logging and infrastructure for tourists. These impacts are further exacerbated by forest dieback, a natural phenomenon.

Y. MICHAEL MAMBRASAR

Rhododendron roseiflorum.

Acknowledgements

This research was funded by the Research Center for Biology, the Indonesian Institute of Sciences (LIPI). Thanks to Orgenes Meaga (†) for assisting my fieldwork, Dr George Argent (†) for helping with specimen identification and advice on the manuscript, Dr Deby Arifiani for suggestions on writing the manuscript and Prima Wijaya Kusuma Hutabarat for field pictures. I also greatly appreciated the Research Center for Biology–LIPI in providing financial support to present this study in the XI Flora Malesiana Symposium 2019.

References

Anonymous. 2018. 6 Tempat Wisata Alam di Wamena yang Coco k Untuk Destinasi Liburan.

Argent G., Lamb, A., Phillipps A., & Collenette A. 1988. *Rhododendrons of Sabah*. Sabah: Sabah Park Publication

Argent G. 2006. *Rhododendrons of subgenus Vireya*. Royal Horticultural Society, London.

Argent, G. 2015. *Rhododendron of subgenus Vireya* : Second edition. Edinburgh. Royal Botanic Garden Edinburgh.

Brown G. K., Nelson G., and Ladiges P.Y. 2006. Historical biogeography of *Rhododendron* section Vireya and the Malesian Archipelago. *Journal of Biogeography*. 33: 1929–1944

Danet F. 2015. The genus *Rhododendron* L. (Ericaceae) in New Guinea: a new neotype for R. gardenia Schltr. and a new species, Rhododendron cravenii Danet, sp. nov. *The Rhododendron* 55: 12–26

Gibbs D, Chamberlain DF & Argent G. 2011. *The Red List of Rhododendrons*. Botanic Gardens Conservation International (BGCI). Richmond, UK. p.128

James SA & Argent G. 2017. *Rhododendron stanleyi* S. James & Argent: A New *Rhododendron* species (Ericaceae, Subgenus Vireya) From Papua New Guinea. *Edinburgh Journal of Botany* 74(2): 163–168

Jhons R.J., Edwards P.J., Utteridge T. M. A., & Hopkins H. C. F. 2006. *A Guide to the Alpine and Subalpine Flora of Mount Jaya*. London: Royal Botanic Garden Kew

Kartikasari, E.N., Marshall, A.J., Beehler, B. M. (2013) *Ekologi Papua*. 2nd edn. Jakarta: Yayasan Obor Indonesia dan Concervation Indonesia.

Keim A. P., Kartawinata K., & Effendy O. 2018. *Biodiversitas Terkini Kawasan Danau Habbema Papua*, Indonesia. Jakarta: UM Jakarta Press.

Kores P. 1984. Notes on the genus *Rhododendron* (Ericaceae) in Papua New Guinea. Blumea 30: 45-49

Mambrasar Y.M. & Hutabarat P.W.K. 2016. Keragaman *Rhododendron*

Vireya di Kawasan Danau Habbema Papua. Proceding Semnas Bioeti KE-4 & Kongres PTTI XII. Pp. 744–748

Mambrasar Y.M. & Hutabarat P.W.K. 2018. *Rhododendron meagaii*, A New Species Of *Rhododendron* Subgenus Vireya (Ericaceae) From Papua, Indonesia. Reinwardtia 17(2): 97-100

Meyers K. & Hitchcock P. 2008. Mission Report, Reactive Monitoring Mission to the Lorentz World Heritage Site, Indonesia, from 26 March to 8th April, 2008 UNESCO World Heritage Center–IUCN.

Rugayah, Retnowati A., Windadri F. I., dan H. A. (2004) Pengumpulan Data Taksonomi dalam Rugayah, Widjaja E. A., dan Praptiwi (Ed.) *Pedoman Pengumpulan Data Keanekaragaman Flora*. Bogor: Pusat Penelitian Biologi.

Sleumer, H. 1960. *Flora Malesiana* Volume 6. The Netherlands: Noordhoff International Publishing Leyden.

Wiguna R. 2015. Kriteriia Penentuan Spesies Prioritas *Rhododendron* spp. Terancam Kepunahan Untuk Konservasi Secara Ex-Situ di Indonesia. *Buletin Kebun Raya*. 18(1): 31-40

Yassin F. 2015. Strategi Pengembangan Sektor Pariwisata di Kabupaten Jayawijaya[Tesis]. Jakarta: Universitas Terbuka

Yewun M. F. 2017 Mei 11. Pemkab Jayawijaya Kembangkan Potensi Wisata Danau Habbema. Antara Papua. Top News.

What happened to all the hybrids?

Dr Graham Price

Needing a break from reading and searching on the Web, I was wandering around the garden on a cold winter day with a westerly wind buffeting our trees and bushes. Melbourne, where I live in an apartment, had just re-entered lockdown as part of the Covid-19 pandemic. I had few options for entertainment as we cannot go anywhere for the next six weeks. I certainly couldn't do what I wanted, like drive up and visit the Dandenong Ranges Botanical Garden (formerly the National Rhododendron Garden) where there is always somethings new and surprising to see at any time of the year.

I noticed one of my vireya plants was flowering – yes, vireyas flower at any time of the year, this one in two to three month cycles. I began thinking about crossing it with other vireyas to produce hybrids with complementary characteristics. I like hybridising because of the pleasure of producing something entirely new, some entirely new mixture of colours or flower styles. I'm not much interested in producing hybrids for commercial purposes, but if I did produce something special I would like to produce clones and give them away.

Figure 1: My cross X92/70. (*R. aurigeranum* × *R. laetum*) × R. zoelleri 'Island Sunset'. The colours appear only in winter.

Above Figure 2: Again my hybrid X92/70, This time showing summer colours.

Below Figure 3: My cross X98/05, (*R.* 'Buttermilk' x *R.* 'Robert Bates').

The vireya that was flowering is consistently attractive with strangely alluring flower colours – a mix of salmon pink and orange in this cold weather (see Figure 1), but in warmer weather it changes to a dominant yellow with pink undertones (see Figure 2). I have never registered this hybrid – it is just numbered X92/70, the seventieth cross I did in 1992. To produce it I selfed the hybrid {(*R. aurigeranum* × *R. laetum*) × *R. zoelleri* 'Island Sunset'} which Graham Snell had produced in the early 1990s. *R. aurigeranum* is a species from PNG and *R. laetum* is a species from West Papua and both have strong yellow flowers. *R. zoelleri* 'Island Sunset' is a named variety of the species from Goodenough Island off the east coast of PNG, and it has largish flowers with yellow throats and strong orange lobes. As expected, the plant that I selfed had a combination orange/yellow flowers but was probably not as good as any of its parents. The idea of selfing a complex hybrid (many parents) is a good strategy for bringing out complex colours drawn from the hidden ancestors of the individual species.

Other options are to cross it with one or several of my other hybrids. One is a hybrid I made in 1998 (X98/05) by crossing 'Buttermilk' with 'Robert Bates' (see Figure 3). It has largish bright yellow flowers of a good size. Another option is a hybrid made by Graham Snell in 1992 (X92/99) by crossing *R. rarilepidotum* with *R. javanicum*. It's a small bush with dark green fleshy leaves and bright red-orange flowers in trusses of 11–14 flowers (see Figure 4).

Figure 4: Graham Snell's vireya cross (*R. rarilepidotum* × *R. javanicum*).

Figure 5: Brian Clancy's vireya hybrid PZ.S (*R. phaeopeplum* × *R. zoelleri* 'Island Sunset') × *R. superbum*.

My last option is to cross it with a seedling of a cross made by Brian Clancy in 1996. The cross was {(*R. phaeopeplum* × *R. zoelleri* 'Island Sunset') × *R. superbum*} which Brian labelled simply PZ.S and sold to Society members at one of the annual shows. *R. phaeopeplum* is actually a smaller variety of the species *R. konori* with scented white flowers and it too comes from West Papua. *R. zoelleri* 'Island Sunset' I described earlier. *R. superbum* is another scented species from PNG and has large white or cream flowers with deep pink throats.

I once thought the flowers of Brian's PZ.S hybrid were the best that I had seen (see Figure 5, above), but the plants proved to be weak with a gangly growth habit and little resistance to diseases. I wonder if any other Society members still have any of these seedlings from Brian Clancy and if so how have they developed and what are the flowers like? I am expecting this plant to flower in the next month or two, so it's a candidate for crossing with my X92/70 hybrid.

I was pleased that I have at least a few options for making the cross among my few surviving vireyas and over time I will try to make all of them. In the years 1990 to 2003 I was very enthusiastic about hybridising vireyas

Figure 6: *R.* 'Australian Sunset', an elepidote hybrid produced by Karel Van de Ven.

Figure 7: *R.* 'Colehurst', an elepidote hybrid produced by Vic Boulter.

Figure 8: *R.* 'Donvale Ruby', an elepidote hybrid produced by Jack O'Shannassy.

Figure 9: *R.* 'Chayya', a vireya hybrid produced by Brian Clancy.

and carried out 162 crossings in all, 70 crossings in 1992 and 34 in 2001, with smaller numbers in the other years. As with most attempts at crossing rhododendrons, not all were successful. Only 67 seedlings reached sufficient maturity to flower so that I could get photographs. Of those seedlings most were of poor quality or not significantly better than their parents to justify keeping. A small number of the seedlings were of quality but most of these were lost during periods of adverse weather (eg. 46°C days in February 2009).

Thinking about making new hybrids brought to mind the strong history of rhododendron hybridising in Australia. Over the years Society members created a large number of rhododendron hybrids and many were registered through the Society with the Royal Horticultural Society in the UK. I reviewed all the hybrids registered through the Society and was amazed by their number and range: a total of 957 in the 58 years since 1962, which is an average of 16.5 per year. The peak period of hybridisation were from 1984 to 1999 when a total of 503 hybrids were produced and registered, an average of 31.4 per year. In recent years, since 2010, when I expected to see a complete

Figure 10: *R.* 'Neesa', a vireya hybrid produced by Graham Snell.

Figure 11: *R.* 'Tiara Tahiti', a vireya hybrid produced by Judith Sack.

Figure 12: *R.* 'Kingston Blush', a vireya hybrid produced by Kaye Hagan.

drop-off, there has still been a surprising number of new hybrids with 106 registrations, an average of 10.6 per year.

The spread of hybrid registrations among the different types of rhododendrons was also surprising. Elepidote and lepidote rhododendrons, the cool climate Asiatic, European and North American varieties, constitute 55.9% of the registrations (see Figures 6–8), vireyas constitute 27.5% (see Figures 9–12) and azaleas 16.6%. A little knowledge of the history and people who were active collectors and hybridisers allowed me to recognise factors involved in producing the statistics. The most prominent factor was the basic drive and interest of individuals and transfer of their passion to nearby friends. This produced clusters of enthusiasts who concentrated on a particular group of rhododendrons.

One easily recognised group was among nurserymen located in the Dandenong Ranges who focussed on commercially attractive elepidotes that flowered early in Spring to avoid Summer heat. Another group was located in the foothills of the Dandenongs and they focussed on vireyas. Another was located in the north eastern suburbs of Melbourne and they focussed on elepidotes suitable for hotter suburban conditions. Yet another was a group in Tasmania who also focussed on elepidotes but for somewhat cooler conditions.

There is insufficient space here to name all the people involved in hybridising rhododendrons and many of the names would not mean anything to most readers. However, it is desirable that we remember the prominent named hybrids they produced, so I show here photographs of a small selection.

For me an important question is where are the Australian produced rhododendron hybrids now? There used to be many commercial nurseries specialising in rhododendrons throughout Australia, especially in the Dandenong Ranges in Victoria, but most of these closed as rhododendrons fell out of fashion. Are the plants today commercially available elsewhere and if so where? Or, are they limited to private gardens, if at all? I would love to know what Australian hybrid plants you have in your garden or collection. If you have the time please contact me and let me know, my Email is: *lithic01@bigpond.net.au*

If you are interested in getting an Australian rhododendron hybrid the following are contacts for a few nurseries or gardens that still sell these rhododendrons. Give them a try.

• **Jagera Wholesale Vireya**, A specialist Vireya Nursery with a list of available plants and some are Australian hybrids. Owned and operated by Neil Puddey. Located at 74 Woolgoolga Creek Rd, Woolgoolga, New South Wales 2456, Email: *neil.puddy@bigpond.com* Web: *www.vireyaworldwide.net.au*

• **Emu Valley Rhododendron Garden.** A specialist rhododendron garden

with a selection of rhodos for sale, located at 55 Breffny Rd, Romaine, Tasmania 7320 (near Burnie).

E: *enquiries@emuvalleyrhodo.com.au*; Web: *www.emuvalleyrhodo.com.au*

• **Yamina Rare Plants**. A nursery of rare, unusual and collectors' plants specialising in Magnolias, Acers and Conifers. They can provide a wide range of all rhodo types, including azaleas, through their commercial connections. Availability through Facebook and Instagram via their website. Nursery located at 82 David Hill Rd, Monbulk, Victoria 3793.

E: *info@yaminarareplants.com.au* Web: *yaminarareplants.com.au*

• **Camellia Glen.** This is a Camellia and Vireya Rhododendron nursery located on the Sunshine Coast of SE Queensland. They have a list of over 40 Vireya hybrids for sale. Located at: 50 McKays Lane, Palmwoods, Queensland 4555. Email: sales@camelliaglen.com Web: www.camelliaglen.com

I have been told that a selection of rhododendrons occasionally appear at Bunnings, especially in Tasmania. Some are Australian hybrids, but it's difficult to get specific plants. They appear to source the plants from a number of wholesale nurseries so they may not be directly accessible to the public.

• **Australian Rhododendron Society.** Many Australian hybrids are maintained by the Australian Rhododendron Society, which was the original developer and custodian of the National Rhododendron Garden at Olinda in the Dandenong Ranges east of Melbourne. That garden is now the Dandenong Ranges Botanic Garden (DRBG), located at 24 Georgian Road, Olinda, Victoria 3788. Ph: 13 1963, Web: *www.parks.vic.gov.au/places-to-see/parks/dandenong-ranges-botanic-garden*

The Society and DRBG has specific garden beds devoted to individual hybridists from which they continually propagate new plants and they maintain a wide selection of species and hybrids in their shadehouses, which are manages through specific databases. For the 58 years of its existence the Society has also maintained databases of over 9,000 individual hybrid and over 11,000 individual species plants in the garden. These provide information on the plant name, when and where sourced, including wild sourced plants, and where they are located in the garden. This is a tremendous resource of information and represents many years of dedicated work by members.

Throughout the year the Society holds sale days, some in collaboration with commercial shows and displays, which might be convenient events for the public to get plants if, pandemic permitting, they continue. The Society has an extensive website with a searchable database of available plants with pictures, including species and Australian hybrids. They can be contacted and will accept orders for plants through the website or via email: *vicrhodo@gmail.com* Web: *www.rhododendron.com.au*

Notes on hybridising in Subgenus Choniastrum

Andrew Rouse

Subgenus Choniastrum

There have been a number of taxonomic revisions of *Rhododendron,* and Choniastrum species have either been classified as a section (Philipson, 1986, Chamberlain 1996), or as a subgenus (Goetsch 2005). I'm referring to this group as a subgenus as analysis based on molecular data (Goestsch 2005) supports elevating Choniastrum to subgenus level.

Irrespective of their taxonomic level, Choniastrum appears to be a distinct group within *Rhododendron,* with the defining characteristics of lateral inflorescence, evergreen leaves and 10 stamens.

The most recent revision of Choniastrum that I'm aware of describes 11 species (Philipson 1986). In this revision, 14 previously described species were combined under *R. moulmainense,* including *R. ellipticum*, *R. stenaulum*, *R. klossii* and *R. westlandii*. Under this treatment, *R. moulmainense* is a widely distributed species, ranging from the Ryukyu Islands south of Japan, China, Myanmar and southeast Asia extending to the Malay peninsula

Similiarly, *R. amamiense* has been classified as a variety of *R. latoucheae* i.e. *R. latoucheae* var. *amamiense*.

Choniastrum species in cultivation in Australia

At least six Choniastrum species have been introduced into cultivation to Australia – *R. moulmainense, R. championae, R. hancockii, R. latoucheae, R. henryi* and *R. stamineum* – and possibly more. At various times I've kept all these species in cultivation in my garden except R. *henryi*.

I also retain specimens of *R. ellipticum* and *R. klossii* under these names, as horticulturally they are quite distinct from *R. moulmainense* in terms of flower colour, number of flowers per truss and flower shape. For example, specimens I have under the name *R. moulmainense* have lilac flowers (Figure A) whilst *R. klossii* are light pink flushed to white (Figure B).

In 2015, whilst volunteering at the National Rhododendron Gardens Olinda (now Dandenong Ranges Botanic Garden), I undertook a survey of the Choniastrum species held in the collection. This survey was undertaken as a test of the garden's plant database, to ascertain whether plants with a GPS waypoint could be located in the gardens. I selected Choniastrum species for this test as they have distinctive vegetative features that enable them to be identified when not in flower. Pleasingly, of 29 Choniastrum plants across eight species and forms that had GPS waypoints, 16 plants could be relocated by finding their location in the garden by entering their waypoint into a hand-held GPS device (Table 1).

Table 1: Species in subgenus Choniastrum listed on the Dandenong Ranges Botanic Gardens (DRBG) plant database, and specimens with GPS waypoint locations found during a plant hunt held in January 2015.

Species	No. of plants on DRBG database with location recorded (GPS waypoint or bed)	No. of plants found using GPS waypoint listed on DRBG plant database
R. championae	4	3
R. hancockii	1	1
R. henryi[1]	3	1
R. latoucheae	2	1?
R. latoucheae (*R. amamiense*)	3	2
R. moulmainense	3	4
R. moulmainense (*R. ellipticum*)	5	2
R. moulmainense (*R. stenaulum*)	4	2
TOTAL	25	16

1. I've never held *R. henryi* nor seen it in flower, and the plant in the DRBG collection found under this name did not look like a Choniastrum species, so it may be mis-labelled.

Choniastrum hybrids

For many years I've held specimens of the hybrid R. *amamiense* × *R. championae*, a cross undertaken by my father. In full flower it is a superb horticultural specimen, and more floriferous and bushier than either parent. Inspired by this hybrid, between 2002 and 2006 I made a couple of crosses using this hybrid and other Choniastrum species I had at the time. Somewhat embarrassingly, it was only this year that I checked the labelling of other Choniastrum plants in my parent's garden to find that there are a couple of other surviving and labelled Choniastrum hybrids. The list of Choniastrum hybrids, either held by me or in my parent's garden, are in Table 2.

Both *R. ellipticum* and *R. amamiense* were used in hybridising, and whilst these species are no longer recognised, I have retained their names as they are floristically distinct from *R. moulmainense* and *R. latoucheae* respectively.

Table 2: Choniastrum hybrids held by Andrew Rouse.

Hybrid (F x M)	**Hybridiser**	**Description**
R. amamiense × *R. championae* (Figure C)	John Rouse	Flowers white with yellow blotch, three flowers per truss with up to three trusses in a floral assemblage. Bushy, floriferous.
R. championae × *R. ellipticum* (Figures D & E)	John Rouse	Flowers white flushed to pink, pinky-red blotch, 2–3 flowers per truss with two trusses in a floral assemblage. Bushy, floriferous.
R. amamiense x *R. ellipticum*	John Rouse	Not sighted in flower.
R. latoucheae × *R. ellipticum* (Figure F)	Andrew Rouse	Flowers mauvy-pink, darker around the base of the corolla, yellow blotch, 1–2 flowers per truss with up to 5 trusses in a floral assemblage. Leggy, upright bush, floriferous, branches bending under the weight of the flowers.
R. latoucheae × *R. amamiense* (Figure G)	Andrew Rouse	A cross between two forms of *R. latoucheae*. Flower mauvy-pink to pinky-white.
(*R. amamiense* x *R. championae*) × *R. amamiense* (Figure H)	Andrew Rouse	Similar to *R. amamiense* × *R. championae* except with smaller flowers.
(*R. amamiense* × *R. championae*) × *R. latoucheae* (Figure I)	Andrew Rouse	Flowers mauvy-pink or pinky-white. Floriferous.

All the hybrids flower from late September to mid-October. The hybrids with the most horticultural merit are *R. amamiense* × *R. championae*, *R. championae* × *R. ellipticum* and *R. latoucheae* × *R. ellipticum*.

Above: **Figure A** – *R. moulmainense.*

Below: **Figure B** – *R. klossii.*

Figure C – *R. amamiense* × *R. championae*.

Figure D – *R. championae* × *R. ellipticum*.

Figure E – *R. championae* × *R. ellipticum*.

Above: **Figure F** – *R. latoucheae* × *R. ellipticum*.

Below: **Figure G** – *R. latoucheae* × *R. amamiense*.

Figure H – (*R. amamiense* × *R. championae*) × *R. amamiense*.

Figure I: (*R. amamiense* × *R. championae*) × *R. latoucheae*.

Horticultural requirements

I have the bulk of the Choniastrum hybrids growing in pots. At 15–20 years of age they are 2–3 meters and are grown in 40 cm pots in acid-loving potting mix lightened with frittered polystyrene (3:2 mix to polystyrene). They do however grow well in a raised garden bed, enjoying the same conditions as vireyas – well drained, acid bed, with some full sun during the day. They need good drainage however also need to be well watered whilst in flower and with the first flush of Spring growth. They flower reliably for me every Spring and are a central feature of the garden.

References

Chamberlain, D., Hyam, R., Argent, G., Fairweather, G., and Walter, K. 1996. *The genus Rhododendron: its classification and synonymy*. Royal Botanic Gardens Edinburgh.

Goetsch, L., Eckert, A., and Hall, B. *The Molecular Systematics of Rhododendron* (Ericaceae):

A Phylogeny Based Upon RPB2 Gene Sequences. *Systematic Botany* (2005), 30(3): pp. 616–626.

Philipson, W. R. and M. N. Philipson. 1986. A Revision of Rhododendron: III: Subgenera Azaleastrum, Mumeazalea, Candidastrum, and Therorhodion. *Edinburgh Journal of Botany*. 44(1):1–23.

The Vireya Collection and Conservation at the Royal Botanic Garden Edinburgh

Dr Alan Elliott
Biodiversity Conservation Network Manger (World Flora Online & Global Conservation Consortium for Rhododendron), Royal Botanic Garden Edinburgh

The glasshouses at Royal Botanic Garden Edinburgh are home to the largest cultivated collection of vireya rhododendrons. These southeast Asian rhododendrons make up about 30% of the total diversity of the genus *Rhododendron*.

Figure 1: *R. javanicum* ssp. *cladotrichum*, one of the 233 vireya species in the RBGE collection.

ALAN ELLIOTT

ALAN ELLIOTT

Figure 2: Vireya species held as a potted collection under glass at the Royal Botanic Garden Edinburgh (RBGE).

The year 2020 marks the Royal Botanic Garden Edinburgh's 350th year as an organisation and we have a long association with the genus *Rhododendron*. We have records of North American and European species being cultivated since the year 1775. However, it was not until the 19th century that we grew a few of the early vireya introductions that entered cultivation; like *Rhododendron javanicum* subsp. *javanicum* from the island of Java, and *R. javanicum* subsp. *teysmannii* from Sumatra.

The current vireya collection started in the 1950s and over the past 70 years has steadily grown with numerous scientific expeditions to southeast Asia. We currently cultivate 233 of the roughly 300 species of vireya rhododendrons. Our collection contains over 2,000 plants from 902 unique accessions. 93% of our accessions are of known wild provenance and the collection covers the geographic range of the group: 40% of wild accessions are from Indonesia, 25% Malaysia, 20% Papua New Guinea, 15% Philippines and the remainder come from the rest of the group's range in Asia.

Coming from southeast Asia, it is unsurprisingly a challenge to grow vireya so far north in Scotland. Although a small number of vireyas are found between sea level and 1,000 m in altitude where the conditions are truly tropical, most vireyas are from altitudes of 1,000–2,500 m, in cool montane cloud forests growing as epiphytes on trees. At higher altitudes, up to 4,000 m, some vireya species occur in the open growing on the ground, like their cool growing relatives that grow in the temperate Asia and elsewhere in the Northern Hemisphere.

ALAN ELLIOTT

Figure 3: *R. mogeanum*, collected by George Argent on Bukit Raya, Indonesia, flowering in cultivation for the first time, in October 2019, RBGE.

As vireyas do not survive Scotland's winters if planted outside they need the protection of a frost-free, heated glasshouse environment (Figures 1 & 2). Our collection is maintained with a minimum night temperature of 10°C and during the day vents in the glasshouse open when the temperature reaches 17°C. We also use supplemental lighting and rotate plants on and off these benches to give them a boost through our dark winter days.

Our vireya collection is the legacy of the late Dr George Argent, who I am sure will be well known to many of you. He collected over 300 of our vireya accessions and described 78 species, subspecies and varieties as new to science as he worked on cataloguing the taxonomic diversity of the group through his career.

In 2010 a joint expedition between Royal Botanic Garden Edinburgh and Cibodas Botanic Garden in western Java, led by George, travelled to Kalimantan to study poorly known *Rhododendron* species on Bukit Raya. The two target species for the expedition were *R. fortunans* and *R. mogeanum* which are both endemic to the mountain. The expedition successfully found both species and collected enough data to assess their conservation statuses. Both species were found to have healthy populations growing in the protected forests on Bukit Raya.

R. mogeanum had been described by George in 2003, as a species new to science, from a single preserved specimen in Indonesia's National Herbarium,

Herbarium Bogoriense. A single stem cutting was brought back to Scotland from the 2010 expedition, and over the past decade it has grown slowly in our Research Collection. The species flowered for the first time in for us in October 2019 (Figure 3). Tragically, Dr Argent passed away in April of 2019 having never seen this species flower.

Nearly two thirds of all vireyas (201 taxa) are of conservation concern, threatened or near threatened, and of those only 32% (66 species) are represented in ex-situ conservation collections. While not the original intended use, our vireyas have become a significant global conservation collection and is home to 63 of the 66 threatened taxa found in ex-situ collections. Due to our institutional interest in *Rhododendron*, the Royal Botanic Garden Edinburgh now coordinate the Global Conservation Consortium for Rhododendron, which has botanic gardens and botanical institutions from 13 countries, including the Dandenong Ranges Botanic Garden, working to conserve these beautiful plants and make sure no more rhododendrons go extinct.

Currently Botanic Gardens Conservation International (BGCI) are managing several vireya conservation projects funded by the Franklinia Foundation and the Mohamed bin Zayed Species Conservation Fund. The BGCI's Global Tree Assessment program are updating the IUCN conservation assessments of vireya species that are classed as trees. In Malaysia the Sabah Forestry Department, Kinabalu Park and Sabah Parks, supported by BGCI and RBGE, are working to conserve the critically endangered species *Rhododendon tuhanense* and *R. monkoboense*. In Papua New Guinea, Lae Botanic Garden are doing targeted survey work on *R. retrorsipilum* which is classified as Extinct and the following Data Deficient species *R. hartleyi*, *R. natalicium*, *R. detznerianum*, *R. gumineense*, *R. kerowagiense*, *R. brevipes* and *R. dielsianum* var. *stylotrichum*. Hopefully with additional data from field survey work we can assess these species.

Between the Biodiversity Crisis, the Climate Emergency and Covid, it has never been more pressing or challenging to do what we can to conserve and protect the diversity of *Rhododendron*.

The adventures of three "highly intelligent" people

Denby Browning

According to Henry Hancock, rhododendrons appear to attract highly intelligent people. Before I introduce you to three highly intelligent people, please indulge me to blow a trumpet about the rhododendron garden at Tamborine Mountain Botanic Gardens in the hinterland of southeast Queensland. I work in the Gardens when I am not being accosted by other volunteers and visitors wanting information about our work in this beautiful place. I am allowed only to weed in the garden anyway; I can barely identify one plant from another.

This year, after some severe cutting back a few years ago and some tender loving care by Margaret Pile who is in charge of that garden, the azaleas, species rhododendrons and vireyas have been spectacular this year. Now please meet three highly intelligent people whom it was my privilege to interview for this article: Kaye Hagan in Hobart, Henry Hancock in Adelaide and Helen Franklin who lives in the Macedon ranges not far north of Melbourne.

All are avid rhododendron enthusiasts, with a particular interest in the vireya subgenus.

Kaye and Gordon Hagan

Kaye and Gordon Hagan moved to Hobart from Melbourne in 1999. There they visited a rhododendron show and immediately fell in love with the vireyas.

"We love the vibrant colours; yellows, oranges and multi-coloured," says Kaye. "Some are beautifully perfumed. And they will flower all year round."

The couple soon had a collection of more than 250 vireyas. Health issues necessitated a move in 2017. They acquired a much larger block of land where a vireya display house has been erected.

Kaye says the key to success with vireyas is to grow them "on top of the ground. They love water but not wet feet. Fertilise regularly during the warmer months."

They also like pruning, she says. Start early so there are no long shoots.

She says vireyas love tree fern logs.

"We use a long 32 mm drill bit to carve out three holes in the log, then cover the holes with fly screen wire to keep the holes open for good drainage prior to planting out."

Above Kaye Hagan with *Rhododendron konori*.

Below The Hagan's new shadehouse.

A significant benefit for Kaye, aside from the pleasure of growing the plants and the friends she and Gordon have developed over time, is travel.

"They have taken me to places I never would have been," she says. "I have been invited to Hawaii and had the pleasure of meeting with the late Dr George Argent. I was also invited to Chicago for a presentation at the Botanic Garden. And I have been asked to talk at local clubs in South Australia and Victoria."

The Hagans' vireya display house is open by appointment.

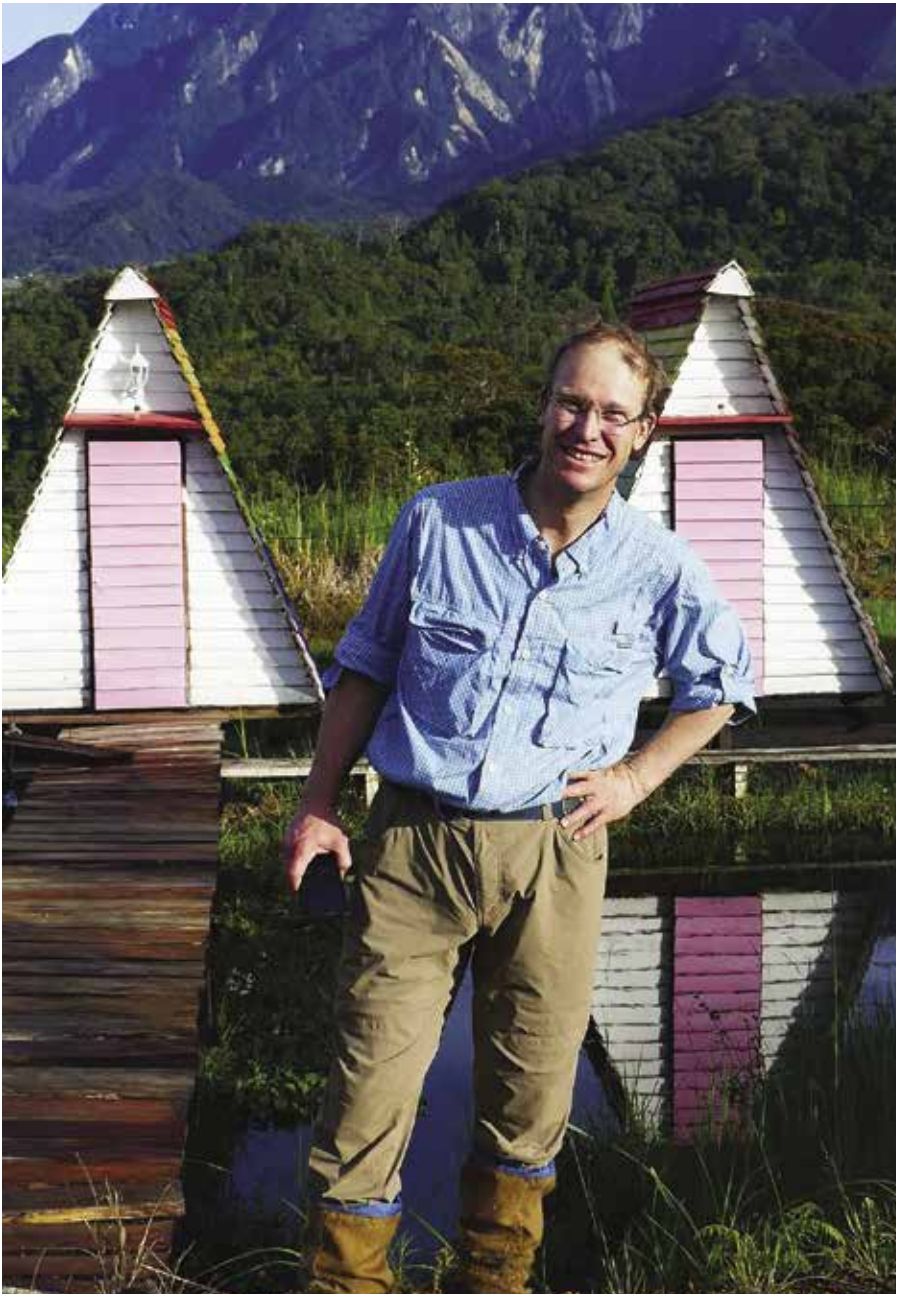
Henry Hancock

Henry Hancock lives in suburban Adelaide, not the ideal location for vireyas with its hot, dry summers and cold, wet winters.

Nevertheless, he was bitten by the vireya bug as a result of genetics. He is Andrew Rouse's cousin and Andrew's father introduced him to the bug.

Like Kay, the condition has led him to interesting travel opportunities.

"I went with Andrew Rouse and Neil Puddey to Mount Kinabalu in Sabah, Indonesia, to see the vireya rhododendrons in their native habitat.



Henry Hancock.

"They are tall and leggy," says Henry, "not the attractive bushes we create with careful pruning."

In Sabah, Henry met Italian commercial camellia grower Enrico Ciarrocchi.

"Enrico produces about a million plants a year in high-humidity hot houses," says Henry. "As soon as they shoot, three shoots are nipped out, later nine, then again – 27. He pots the young plants when they are 18 inches tall. They flower quickly."

Continuing his trek to see vireyas in their native environment, Henry sought permission to visit Mount Finnigan in far north Queensland.

"Of about 350 types of vireyas in the world, only two are native to Australia, *R. lochiae* and *R. viriosum*," says Henry. "They grow in this tropical region at 1,000 metres above sea level in remnant tropical rainforest. We needed special permission from the first nations custodians and joined in a smoking ceremony."

Henry is somewhat self-deprecating about his own success with vireyas.

"I have 20 or 30 rhodos. Most are small and most don't flower!" he says.

"But I do have the largest collection of plant tags – 150 tags lovingly written for plants that promptly died."

Henry's secret to his apparently limited success is growing them in peat moss and blueberry mulch.

"Nipping out when the plant is still young is good practice," he says.

"And I have a Rouse House. It is two metres by 1.5 metres and has a fan in the end. It is a humdinger for seedlings."

Helen Franklin

Helen Franklin has lived on her property in the Macedon ranges north of Melbourne for the past 10 years. Of 48 acres, 15 are fenced to make her garden.

She grows mainly species and unnamed rhododendrons from cuttings but admits that vireyas are "getting me hooked".

The reason for fencing is deer – and wallabies.

"The deer don't eat rhododendrons but they do a lot of damage to the garden," says Helen. "They also rub their antlers on tree trunks which ring-barks them." Her father was a forester and moved around Victoria before settling at Mount Macedon.

When Helen returned 10 years ago, she took up an interest in rhododendrons.

"But I was frustrated by the small rhododendrons supplied by general nurseries these days. I wanted the big-leafed species and the large growing rhododendrons I had seen in the rhodo gardens," she says. "A friend had a

Helen Franklin in her Macedon ranges garden.

garden up on the mountain and I have since received 200 to 300 cuttings from friends' gardens.

"I believe most people have lost the art of taking cuttings. As a result, they miss the observation and learning that comes with growing plants from cuttings. It is endlessly fascinating.

"I have about 80 rhodos in the gardens at the moment and am growing another 30 or so for planting out. I have tried to grow to flowering before planting so I can select in terms of colour so they don't look like fruit salad! Three of my species plants from the Rhodo Society will flower for the first time this year and it has been exciting to watch them develop."

Helen has a shade house for propagation and practices – or tries to – weekly rotation of watering.

"Train your plants to be tough," she says.

"I believe large-scale garden owners have a duty to maintain rare plants. Some used to be quite common but now are increasingly scarce; we can't let them disappear completely."

But it is not all rhododendron flowers for Helen.

"I took two weeks' leave from work recently, so I planted 80 trees and shrubs around the garden!"

"What I particularly like about the Australian Rhododendron Society in Victoria is that the people are genuinely interested in plants as a whole; not solely the one genus."

Rhododendron nutalli in Helen Franklin's garden.

ARS members and their rhododendron journey

Prue Crome

How do people come to be passionate about a particular group of plants and what it is that capture their heart? The following interviews explore the journeys of four long standing and committed rhodophiles, what excites them and how to grow them. They have all been instrumental in propagating, hybridising and addressing the succession of *Rhododendron* collections in Australia of both species and hybrids.

Maintaining the collections that are held in Australia is extremely important for future generations, as nowadays access to imported cutting material is no longer allowed and wild provenanced seed importation has been limited by international protocols.

Alan Kepert and Laurie Begg (Figure 1), now in their eighties, are still involved in propagating the 'difficult to locate' plants in the Rhododendron Gardens in Olinda, their focus being more on Asiatic rhodos, while Andrew and Neil are doing the same for the Malesian rhodos i.e. vireyas. All these gentlemen are very generous in helping, offering information and advice – the Australian Rhododendron Society are lucky to have such members.

Figure 1: Laurie Begg (left) and Alan Kepert (right), with Tom Noonan and Elizabeth Xipell, in the ARS tea room at the Dandenong Ranges Botanic Gardens.

Alan Kepert: an experienced Rhododendron grower and collector

Alan, you are widely regarded as a deeply knowledgeable person about rhododendrons, particularly species. How long have you been collecting and growing rhododendrons? Do you have a garden full of rhododendrons? What facilities do you have?

I have an old garden in East Ringwood of nearly ¼ acre on top of a hill (elevation 120m). We bought the block about 60 years ago, it was large as we both liked gardening and it was close to the Dandenong Ranges which we loved, and which influenced our choice of plants for the garden. Over the years I planted many rhododendrons but lost a lot due to our exposed position with the extremes of heat and drought that Melbourne experiences. I now have about 50 rhodos, 150 azaleas and lots of camellias and roses. I no longer have a glasshouse or shade house as I now use the facilities at Olinda for propagation.

You are a Life Member of the Australian Rhododendron Society. When and why did you join? Were there ARSV members who influenced you?

I studied chemistry and worked as a Chemical Engineer in Yarraville. I joined the society in 1960 as I wanted to be part of the development of the new garden in Olinda allocated by the State Government.

I remember a public event at the Box Hill Town Hall where the Rhododendron Society had a range of experts, one being Arnold Teese, who lectured at Burnley. He was the gun grafter for Boulters, where he worked whilst establishing his nursery. Apparently, a lot of Boulters hybrids used 'Marion' which was difficult to propagate from cuttings, so most of their stock was grafted. Arnold was able to do 100 grafts per day. There were usually around 12–20 real enthusiasts at any one time, Jack O'Shannassy being one, who were knowledgeable and always very helpful.

Do you specialise in any particular type of Rhododendron or are you interested in all types? If there is a group you specialise in, what do you consider as the 'stand-out' varieties (species or hybrid) in that type?

I am interested in all types of rhodos but specialise in the Maddenia section and deciduous azaleas. From my experience these have been the easiest to grow in my garden. I am sure these would be popular if they were more available. I have tried *R. williamsianum* and its hybrids a few times, but they die after a few years, it's just too hot at my place. I also find the Asian deciduous azaleas like *R. nudipes*, *R. reticulatum* and *R. wadanum* do well. An interesting aside, a lot of the Japanese species in Olinda were imported from Koichiro Wada, a Japan horticulturalist. They were raised by Bob Withers and planted at Olinda in 1977. Japan has the same hardiness issues as Australia e.g. heat not cold as in Europe, where lots of the early hybridising was done.

Do you have any 'tips-of-the-trade' in collecting and growing rhodos? For example, a particular type of soil mixture? Do you have any other tips, such as growing conditions or tips for propagation?

I use Attunga premium potting mix for container grown plants and occasionally add slow release fertiliser. In the garden most plants do well in my loamy black soil. If you have sticky yellow clay, dig it out and fill the hole with good soil and keep the plant high up, not in a well. In the past, glass houses were common but not with heating, so propagation success wasn't as good as it is now, such as what we have at Olinda. I used to put deciduous azaleas under fluoro lights to keep them going through the winter.

Where do you get your rhodos from? Do you get them from the Society, or do you have private sources?

I generally get my plants or cuttings through the Society, as finding a suitable nursery can be difficult. I have imported species seeds from the Royal Horticultural Society in the UK and the American Rhododendron Society over the past years. I don't order open pollinated seeds, as you never know what you will get. The early planted *R. macabeanum* at Olinda were from open pollinated seeds and as a result the flower colours range from cream, through yellow to pink – true *R. macabeanum* flowers should be yellow to yellowish-white.

Do you hybridise between your rhodos? If so, do you have specific objectives in making a cross or do you make judgements and take the opportunity when you see a couple of rhodo plants flowering?

I no longer make crosses but have made many over the past 50 years. They are not named or registered, I just do them for my own enjoyment. To name a few:

- CPV4 (*R. ciliicalyx* Pink × *R. veitchianum*) possibly my best to date, early flowering, perfumed, pink and white with a touch of yellow in the throat;
- *R. dendricola* × *R. chrysodoron* – a pale yellow and much easier to grow than 'Chrysomanicum';
- 'Boddaertianum' × (*R. yakushimanum* × *R. arboretum*) – pink flowers and good foliage;
- (*R. yakushimanum* × *R. arboretum*) × 'Pink Delight'

Also, lots of deciduous azalea seedlings from my own crosses or American Rhododendron Society seeds. I cross for more flowers and hardiness eg (*R. luteum* × 'Gibraltar') – a floriferous bright orange, is one of my better ones (Figure 2).

The popularity of rhododendrons with the general public has declined in the past couple of decades. Do you have an opinion of what has caused this?

Above, Figure 2: One of Alan Kepert's deciduous azalea hybrids, *R. luteum* x 'Gibraltar'.

Below, Figure 3: *R. ciliicalyx* growing in Alan Kepert's garden.

It's about choosing the best plants for where you live. Rhododendrons, once established are hardier than people think, particularly the Asiatics. The plants that have done well for me in East Ringwood are:

- Asiatic Rhododendron hybrids – 'Sir Robert Peel', 'Mrs E.C. Stirling', 'Donvale Pearl', 'Donvale Pink Drift', 'Perri Cutten', 'Gwilt King', and 'Seta';
- Asiatic rhododendron species – *R. formosum* ssp. *inaequale, R. veitchianum, R. burmanicum, R. cubbittii* Ashcombe (maybe a hybrid), R. *taggianum*, *R. ciliicalyx* Pink (maybe a hybrid, see Figure 3), *R. ovatum, R. hongkongense, R. dendricola,* and *R. occidentale;*
- Other suggested species for suburban gardens are *R. arboreum, R. arboreum* ssp. *delavayi, R. vialii, R. simiarum, R. scabrifolium* var. *spiciferum, R. pachypodum, R. carneum, R. lyi* and R. *horlickianum*.

Andrew Rouse: vireya collector and hybridiser and Editor of the ARS Journal

Andrew, you are well known as a vireya enthusiast and you have an extensive collection at your home – mostly species. How many do you have and in what conditions are they growing?

Yes, a vireya tragic through and through. The garden is a mix of species and hybrids. The core of the species collection came from cuttings from my father's collection. My driver at the time was helping to safeguard them in cultivation, as in his later years, he closed down his glasshouse and was no longer propagating or distributing plants, so there was an increasing risk that species could be lost to cultivation. Some of the plants were originally received in the late 1960s and early 1970s, and it would have been a great pity to lose them to cultivation. One plant I salvaged was a small, wiry vireya labelled *R. aff phaeochitum*; many years later I discussed this with Lyn Craven, who examined the flowering specimen and concluded it was a new species and described it as *R. gumineense*. As far as I know, the plant I found amongst my father's collection was the sole plant in cultivation. I have many hybrids, a mix of those I've hybridised, and plants hybridised and registered by others. Limited space has meant I have become increasingly ruthless in tossing out poor performing hybrids, so many of the crosses I've done over the years have been consigned to the compost heap! I've registered about 20 hybrids. There are many first class hybrids that grow well in my conditions, many of which were hybridised by ARS members. I endeavour to grow these as specimen plants in pots or hanging baskets, including 'Liberty Bar', 'Great Scent-sation', 'Simbu Sunset', 'Lochmin', 'St Valentine', 'Arthur's Choice', 'Popcorn' and 'Ivory Coast', to name a few.

You have also registered a number of smaller-leafed and smaller-flowered hybrids, rather

Figure 4: one of Andrew Rouse's compact hybrids, (*R. macgregoriae* × *R. rubineiflorum*) × *R. polyanthemum.*

than the larger-flowered varieties. What do you particularly like about the smaller plants? There are many small vireya species, and hybrids of these, that are poorly represented in the list of registered hybrids. Many of the larger flowering vireya species are also lanky plants, so often the price you pay for a showy flower can be a tall, leggy plant. There's a number of smaller vireya species such as *R. rubineiflorum*, *R. anagalliflorum*, *R. graclilentum*, *R. womersleyi*, *R. pauciflorum, R. saxifragoides* and *R. acrophilum* that are not well represented in the parentage of hybrids, that have characteristics such as smaller leaves, short internode length and bushiness that make them good candidates for hybridising. To get the best out of them I grow them in hanging baskets (Figure 4).

When did you first become interested in vireyas and why? Was your father, John Rouse, an ARS member? Your father was an active collector and published many research papers wi th collaborators on hybridisation among vireya. Did you pick up

the bug from him? Are any of your children showing signs of also being interested?
My father was an ARS member so I grew up in a garden full of rhododendrons and would help out my father on weekends with potting, weeding, pruning and all other tasks required to keep a large garden and plant collection maintained. So yes, I picked up the bug from many enjoyable hours, over many years, spent in the garden with him. I have two daughters in their early twenties, both of whom have hybrids named after them – 'Charlotte Rouse' and 'Lucy Rouse'. They're thrilled to have rhodos named after them, however it would be a stretch to say that their enjoyment extends to gardening. I live in hope!
What is your formal training – did you study biology or something else? What do you do for a living?
I studied biological sciences at university. I entered tertiary study with the plan of a degree in zoology, however in second year I was more struck by botany, so ended up focusing there and ended up with a science degree with a major in botany. I have been fortunate to have a career as an environmentalist, and I'm back with the environmental organisation World Wide Fund for Nature (WWF) after a stint in the private sector and a development agency.
You have participated on a number of overseas plant expeditions. Have those only involved vireyas or were you interested in other plant types as well? What do you like about seeing plants in their natural environment?
The Australian Rhododendron Society organised a trip to Borneo in 2018 which included a hike up Mount Kinabalu (Figure 5). This was a trip down memory lane, as back in May 1990, Vicky and I announced our engagement and the following day headed to Malaysia for a holiday which included – somewhat bravely – the climb up Mount Kinabalu. This was the first time I had seen vireyas in the wild. Many of the species on Mount Kinabalu are found at the elevation of the park headquarters and I expected to see them everywhere – I was struck by how hard they are to find if they are growing as epiphytes. It was only higher up the mountain, where many species grow terrestrially, that they were easier to find. Returning in 2018, and again reaching the top of Mount Kinabalu was most rewarding, and the highlight for me was seeing *R. buxifolium* in flower around the Laban Rata huts, and *R. ericoides* growing horizontally out of cracks in the rocks close to the summit, at nearly 4,000 m. Since 2017, we've partnered with the Australian Tropical Herbarium to re-collect our local rhodos, *R. viriosum* and *R. lochiae,* from the mountain-tops of tropical north Queensland, and many ARS members have participated in a series of collecting trips. I now have a greater understanding of their horticultural requirement from observing where they grow in the wild, and particularly their affinity to growing on or amongst rocks, and often fully

Figure 5: Andrew Rouse (left), Neil Puddey (centre), and Chris Hodgson on the Mount Kinabalu trail, ARS trip, 2018.

exposed to the elements.

You have been an active member of the Australian Rhododendron Society for quite a few years and currently you are on the committees of both the Victorian Branch and the incorporated national body, ARS Inc. You are also the current editor of this journal. Is this an expression of your enthusiasm about rhododendrons, or do you have a grander plan?

When I joined the Society in 2000 I wanted to be in touch with others who shared my interests, and through the Society, got to know other vireya enthusiasts such as Lyn Craven, Bill Taylor, Murray McAlister and Simon Begg, who were generous with their time and knowledge, and whose company I greatly enjoyed. I don't think I joined with any notion of being actively involved in Society committees, and I suspect my growing involvement in the Society was more Simon Begg's grand plan than mine – he was very

hard to say 'no' to!

Given the many societal and economic changes going on at present, do you have any particular vision for the Society? We have frequently heard you talk about attracting new members. Is this important?

When I look back over the last five to ten years of ARS endeavours, I think the Society has punched way above its weight when you consider our modest number of members. We've held conferences with international speakers, we've organised overseas trips, and partnered with scientific institutions to re-collect our local rhodos and undertake genetic analysis to better understand their evolution. The branches are actively involved with public gardens, some of which have world-class collections of rhododendrons. We exist for the benefit of our members who share a common interest in rhododendrons; a vibrant society can only continue into the future if we have members who share our interest in rhododendrons and their companion plants. Many special interest groups are struggling and in recent years we've seen the demise of some plant societies. If we do not want that fate, then we need to make a concerted effort to attract new members!

Do you have any 'tips-of-the-trade' for collecting and growing vireyas? For example, do you have a specific soil mix that you use? What about fertilising, any particular strategy? What about a preference for pot growing or in garden bed growing?

Most of the species I have I grow in pots, all of which are hand watered. I change the watering frequency in line with the seasons, however when I decide to water, they all get watered. So, the key thing for me is having a potting mix that is sufficiently well drained to minimise root rot amongst those plants that are getting overwatered. The potting mix I make is two parts acid loving potting mix, one part frittered polystyrene and one part pine bark chunks. If I want to increase the drainage, I increase the proportion of polystyrene. It does mean I have to water more frequently in summer as the water drains more freely, however it does reduce death rate from root rot. Some of the species with less vigorous roots are first established in a section of tree fern log, that is then put into a pot with the same mix. I need to put them in pots as I simply can't keep the water up to them during heat waves (tree fern logs dry out very quickly) and the extra weight from the pot and potting mix stops them from blowing over. The plants in the ground are growing in raised garden beds that started as a 1:1 mix of sandy loam and well-rotted compost. The only additional organic matter added after the beds are established is pea straw that is applied as a mulch at the commencement of summer; I've found that frequent addition of other composted material can rot out the plants. Some of the plants were first established in a dead tree fern log which is then partially submerged

into the garden bed. This provides the plant with airy organic root run, and it can decide whether it wants to extend its roots out into the garden bed. I fertilise the beds with an annual dressing of organic fertiliser mixed with blood and bone and the pots get an annual dose of Osmocote pellets. More recently I've taken to foliar feeding and have excellent results with a mix of liquid fertiliser, potassium and chelated iron. I've decided that the whole garden will get this mix three to four times a year as a foliar spray.

Laurie Begg: an experienced rhododendron grower and collector

Laurie you are widely regarded as a deeply knowledgeable person about rhododendrons. How long have you been collecting and growing them? You now live in Trafalgar but most of your growing was when you used to live in Gembrook, Victoria. Did you have a garden full of rhododendrons, what facilities did you have?

I have been growing and collecting rhododendrons since the 1950s. In Trafalgar, I have about 10 asiatics, 20 vireyas and 60 mollis azaleas. I lost 30 vireyas with frost two years ago, otherwise all the rhodos are going well. In Gembrook, my previous home, I had a nursery (approx. two acres) as well as a 'growing on' block of around an acre.

I left high school at 14 to work on my parent's chook farm. Later, I worked full time as a gardener for market gardens and then for a number of years at the National Rhododendron Gardens.

I developed my nursery by working nights and gradually built up stock by buying struck cuttings from Arnold Teese and Boulters, and also at various markets. I mostly stocked *Rhododendron* hybrids, Camellia and Magnolias. My brother Stan had lots of vireyas. Over time I built a large shade houses and propagator, and used the 'growing on' block to plant out stock for testing performance and also growing onto flowering stage. Plants would then be dug up and balled for sale. Pots were not used much in those days.

I had over 1,000 species and hybrids of rhododendrons and loads of vireyas, not to mention lots of other unusual plants e.g. *Menziesii*, *Halesia*, *Lapergeria*, *Fritillaria*, *Arisaema* and *Pleione*. My interests are broad.

You are a Life Member of the Australian Rhododendron Society. When and why did you join?

I joined the ARSV in 1960 to further my knowledge of rhododendrons. The first meeting I attended was in the Olinda Hall. Owen Jones had a large property in Olinda with mature rhododendrons. His garden supplied the flowers for shows in the early days and also cutting material. Arnold Teese was secretary, and lots of the members were nurserymen and/or had very large gardens. There were many people with lots of knowledge, there were lots of very informative talks from trained horticulturalists e.g. Arnold Teese

who used to lecture at Burnley College as his day job.

Do you specialise in any particular type of rhododendron or are you interested in all types? If there is a group you specialise in? What do you consider as the 'stand-out' varieties (species or hybrid) in that type? Does this type of rhodo have commercial potential or is it only of interest to the specialist collector?

My collection was very large, maybe as I was focused on selling. I was always interested in the large leaf rhodos. They were harder to grow but really interesting. They didn't flower that well at my place, but I used to get people coming from as far away as Mitta Mitta to get them. I am also fond of the Triflora subsection, particularly *R. augustinii* (Figure 6) and its hybrids such as 'Blue Diamond', and *R. lutescens* and hybrids. They are hardier plants and do well in the suburbs. I stocked the American deciduous azaleas species and hybrids as I found these easy to propagate and are generally fragrant, very colourful and hardy e.g. *R. arborescens, R. occidentale*, 'Homebush', and 'Gibraltar'. Some of my registered hybrids are 'Larneukk', 'Sappho', 'Our Gem' and 'My Snow White' (Figure 7). 'Crestan' and 'Crestan Betty' were hybridised by Stan Begg. Most of my plants were sold locally and in the Gippsland area.

Do you have any 'tips-of-the-trade' in collecting and growing rhodos? For example, do you use a particular type of soil mixture? Do you have any other tips or secrets, such as growing conditions or tips for propagation?

My large propagator had a misting system and was heated by piped water fuelled with briquettes or wood. I propagated from seed, cuttings and grafts. I don't do much now but for cuttings I use commercial mixes; sand, perlite and peat moss. Once the cuttings are rooted, the key thing is not to over pot. Take the new shoot cuttings before the bark turns brown, they should be semi hard, just the right amount of flex in the stem. For plants such as *R. wardii* and maybe the Fortunae section and hybrids, take cuttings greener to get them growing as early as possible.

The same applies to deciduous azaleas, take cuttings soon after flowering before the shoots become firm and take the very soft growing tips out. Hopefully they can be potted through autumn, so they have good roots for the winter dormancy. Otherwise keep the cuttings moist but not wet over the winter period, you might need to use fungicide to stop rotting off. Some of the Asian deciduous are harder to propagate e.g. *R. quinquefolium* and *R. schlippenbachii*.

Where do you get your rhodos from? Do you get them from the Society? Do you have private sources?

The plants I have now came from Gembrook, friends' gardens and from the ARSV Olinda nursery. I still manage to get up there occasionally and propagate plants that might be lost from the collection. I use the propagation

Figure 6: *R. augustinii*, one of Laurie Begg's favourite rhododendrons.

Figure 7: 'My Snow White', an Asiatic hybrid bred and registered by Laurie Begg.

facilities in Olinda.

Do you hybridise between your rhodos? If so, do you have specific objectives in making a cross or do you make judgements and take the opportunity when you see a couple of plants flowering?

My main focus was using pollen from early flowering varieties and crossing with late flowering ones. In Mollis azaleas I hybridised from large singles onto double Ghents and double Mollis, as they don't set seed and you get a mixture of doubles and singles.

The popularity of rhododendrons with the general public has declined in the past couple of decades. Do you have an opinion on what has caused this?

The first problems with rhododendrons was rust that came on azaleas brought in from NSW and it really affected vireyas. I use dusting sulfur to control it. Around the same time lace bug became an issue, then in the 1980s powdery mildew arrived. This was very difficult to control and seemed to be worse in the Fortunae group.

Droughts caused a lot of rhododendron deaths in the suburbs as there was no moisture left in the soil. What people forget is native plants and even very large deciduous trees also suffered the same demise. Now the properties are much smaller with not much space for gardens, and I don't think the younger generations are that interested in gardening.

Neil Puddey: specialist vireya rhododendron grower

Neil, you are owner and manager of Jagera Wholesale Vireya Nursery at Woolgoolga on the North Coast of NSW. Presumably vireyas grow and flower well in your sub-tropical conditions? Does that include both plants in pots and those planted in the ground?

The bulk of vireya species growing in sheltered positions in tropical highland areas experience climatic conditions not unlike true subtropical conditions. The temperature range is relatively small, and rainfall generally fairly well distributed, at least it was prior to the extremes of late. Vireyas do perform well here all year, both in the garden and containers. I do promote that the selection of the vireya for garden or pot be based on growth habit of the particular hybrid or species.

When did you first become interested in vireyas and why? Was there any specific event or situation that led you to develop your nursery and what made you think it would be successful?

Kathy and I developed our garden in a rainforest setting and we were always searching for those plants that enjoyed the dappled light. Vireyas proved successful, the hybrid 'Wattlebird' was our first purchase, and it was followed by many others. A local retail nurseryman suggested that if I could propagate vireya, he could sell them, as they were hard to source. I had been teaching Agriculture at Woolgoolga High School and thought maybe I could put into

practice some of what I preached. So, the adventure began.

The search for vireyas led me to Graham Snell, then operating a wholesale vireya nursery out of Maleny, Queensland. Graham and Wendy were happy for me to propagate their material, explaining that no one had ever asked before. I received a lot of support and direction from Graham and Wendy. Success or failure was never really that important to me, though it has been good to feel I have been successful with vireyas as an enterprise. It all began as a hobby that I worked on after school and on weekends, that is, if the surf was blown out.

I attended an ARS Conference in Melbourne with Graham sometime in the 1990s and that was the impetus to join the ARSV as there was no branch in NSW, and I was starved of rhododendron interaction except for the Snells in Queensland and Sylvia Saperstein in Mullumbimby, New South Wales.

Your nursery is located about 1 km from the coast. Is the site exposed or is there abundant shade from the local rainforest?

Our Nursery is located in a small valley 2.5 km from our town beach to the east and 4 km from spurs of the Great Dividing Range to the west. Exposure to some strong southerly winds does give trouble at times, but otherwise we are well protected by the rainforest belts to the east and north within our boundary that provide dappled light for much of the day. Flooding can be an issue – Woolgoolga Creek, our property's back boundary, is on the main watercourse draining the basin from mountains to ocean.

I understand that early on you provided a range of over 40 vireyas for the Coffs Harbour Regional Botanic Garden, including a nice R. lochiae, but some desperate persons helped themselves. So you replanted, with the only concern that you didn't end up supplying half of Coffs Harbour. How did it work out and are they still there?

Supplying vireyas to Coffs Harbour Regional Botanic Gardens began with plenty of enthusiasm, a well-protected site was prepared with built up beds and a nice range of hybrids supplied. Some of these were relocated by night-time visitors, but overtime, a nice display developed. A few hardy survivors can be found almost 20 years later. Our nursery has supplied vireya displays for Roma Street Parklands in Brisbane, Royal Botanic Gardens in Sydney and Rockhampton Regional Botanic Gardens. Roma Street and Sydney collections are both doing well but I have not followed up on Rockhampton.

Lou Searle, a renown vireya collector reported that he had vireya seedlings naturally germinating in cracks in rotten pine logs and sawdust. You are credited with the same thing – what are your circumstances and does this say anything about the growing conditions for vireyas?

Lou Searle was one of the pioneers of vireya growing in Australia and lived on the mid North Coast of NSW. It was Lou that inspired Sylvia Saperstein to work very successfully with vireyas. Seedlings do germinate in the moss

growing on logs, bricks and top of pots but almost 100% within the boundary of irrigation sprinklers. Our natural conditions, even though subtropical, humid and moist for part of the year, does have a late winter / early spring dry period that tends to kill off self-sown vireya seedlings. I have not found any seedling vireya establishing outside the nursery shade house area.

You produce a lot of hybrids which are the basis of your overseas sales. Why are they so popular and do you do anything that produces attractive plants?

I have shipped vireyas to 14 different countries, and multiple times to some of these. Our most successful exports have been to Singapore's Gardens By The Bay, La Réunion and Hawaii. The success I've had with exporting, I put down to three factors including:

- Having a good collection of vireyas that perform well, i.e. bushy growth habit, repeat flower and show some disease resistance. I have composted many hybrids that do not meet my criteria as 'garden friendly plants';
- I taught High School adolescents for 28 years, that helped me develop a 'put another barrier in the way and I'll find a way around it' attitude;
- Working with a fantastic knowledgeable agent/freight forwarding company that understands the issues with live plants.

Do you know how many different hybrids you have produced over the years and which ones are your favourites?

Hybridising vireyas is an ongoing pastime, it's all a bit hit and miss but a percentage have been worth commercialising. I have used the hybrid 'Kisses' multiple times as a parent, hoping offspring will inherit its very well branched growth habit and repeat flowering. I discard the seedling if they are not an improvement on the parent or quite different to others in my collection. I have registered 12 hybrids and have another 10 to 15 I am considering. My favourites so far include; 'Joy Lenore', 'Susan Maree', 'Ava', 'Saint Leu Sunset' (Figure 8) and 'Bob's Daughter'.

Do you have any 'tips-of-the-trade' in collecting, growing and flowering vireyas? For example, what soil mix do you use?

Tips of the trade are difficult as what works for the subtropics may not be useful in a more tropical or temperate climate. Important for me:

- selection – choose the vireya hybrid or species for the situation and climate;
- use a well-drained orchid type mix to build up your garden bed or for your pot and do not cover the surface roots with it;
- prune to create a well-formed plant and more flowering points. If I have a plant with straggly long stems, crack or bend the long stem and leave it attached. This promotes side shoots, and once the shoots

Figure 8: 'Saint Leu Sunset', one of Neil Puddey's hybrids.

are 10 mm, cut the stem off;

- keep them well fed. I use all-purpose slow release fertiliser and have been playing with foliar feeds of magnesium and potassium. This seems to promote healthier foliage which is more resistant to pests and disease and encourages flower formation. I also use a standard soluble foliar feed after tip pruning to encourage more branching;
- do not let them dry out.

What future do you see for vireyas, both for private collectors and for commercialisation?
Vireyas do have a future, though a few years back I was not so sure. Gradually gardeners have come to appreciate their potential for adding colour throughout the year and that they are not just flowers on sticks. The increased interest in, and improved displays of vireyas at city and regional Botanic Gardens has raised their profile as rewarding garden and potted plants. I doubt that vireya will ever be as commercial as camellia or azalea, but I have certainly received more enquiries from garden designers, landscapers and private gardeners than in the past.

References

Heat-Tolerant and Sun-Tolerant Rhododendron Hybrids Developed by Koichiro Wada (1908–1981) Tomoo Wada, Yokohama, Japan Edited by Frank Doleshy VIRGINIA TECH University Libraries https://scholar.lib.vt.edu/ejournals/JARS/v37n4/v37n4-wada.htm

New Registrations 2019–20

Lesley Eaton

The following is a listing of registrations submitted by the Australian Rhododendron Society Plant registrar, and approved by the Royal Horticultural Society during the year 2019–2020.

Colour numbers refer to the R.H.S. Colour Chart. Accompanying colour names are taken from *A Contribution Towards Standardization of Color Names in Horticulture*, R.D. Huse and K.L. Kelly, edited D.H. Voss (ARS 1984).

Parents of plants are reported in the conventional order – seed parent × pollen parent.

Abbreviations used:

H	hybridized by
G	grown to first flower
S	selected by
N	named by
I	introduced by
R	registered by

Included in the description are broad colour definitions after the RHS Colour Chart numbers. This will enable members without access to the chart to have some idea of the colour of the flower.

For information on registration and registration forms, please contact Lesley Eaton, lesley.eaton@bigpond.com

'Sarah Rose' Vireya hybrid of *R. zoelleri* × *R. superbum*. H: the late Brian Clancy G: the late Brian Clancy N: Kaye Hagan (2020) I: Kaye Hagan (2020) R: Kaye Hagan (2020) Truss: loose consisting of 4–5 tubular funnel-shaped flowers. Corolla: 107mm × 127mm. Lobes: 6 wavy. Buds: 55C (strong rose pink). Corolla: Inside 54B (strong rose pink) emerging from 55C (dusky rose pink). Outside: 54B (strong rose pink). Leaves: oblanceolate, Length: 126mm x 50mm. Leaf margins: up curved with base attenuate and apex apiculate Upper surface: matt. Height: 1.2 m × 80 cm in 15 years. Flowering time: periodically throughout the year with a spring flush. Light scent, pronounced white stamen tips. Named in memory of Sarah Rose (Beltz).

New Registrations 2019–20: 'Sarah Rose'.

The Australian Rhododendron Society Inc.
Contact Information

President	Dr Jeff Jenkinson jgj@internode.on.net
Vice-President	Mr Andrew Rouse awrouse@bigpond.com
Secretary	Mr Graham Price lithic01@bigpond.net.au
Treasurer	Mr Graham Price lithic01@bigpond.net.au
Plant Registrar	Mrs Lesley Eaton, PO Box 597, Snug, Tas. 7054. lesley.eaton@bigpond.com
Journal Editor	Mr Andrew Rouse awrouse@bigpond.com
Journal Designer	Mr Richard Francis, 18 Sinclair St., Colac, Vic. 3250. wildeel@internode.on.net
National website	www.rhododendron.com.au
Correspondence	National correspondence to the Secretary (above)

Local contacts

SOUTH AUSTRALIA

ARS South Australian Branch

President	Olivera Waterman	oliverawaterman@chariot.net.au
Secretary	Lisa Greenstreet	lisa.gstreet@internode.on.net

TASMANIA

Emu Valley Rhododendron Garden Inc.		***www.emuvalleyrhodo.com.au***
President	Mr Geoffrey Wood	geoffreywood@me.com
Business Manager	Ms Sue Johnson	enquiries@evrg.com.au

ARS Southern Tasmanian Branch

President	Karina Harris	telopea44@gmail.com
Secretary	Gill Fitzgerald	gillfitzgerald@gmail.com

VICTORIA

ARS Victorian Branch

President	Mr John O'Hara	johnohara@optusnet.com.au
Secretary	Mr Michael Hare	vicrhodo@gmail.com

NEW SOUTH WALES

Blue Mountains Rhododendron Society		***www.rhodogarden.com.au***
Gardens Supervisor	Mr Dick Harris	secretary@rhodogarden.org.au

QUEENSLAND

Tamborine Mountain Botanic Gardens		***www.tmbotanic gardens.org.au***
Manager		manager@tmbotgardens.org.au