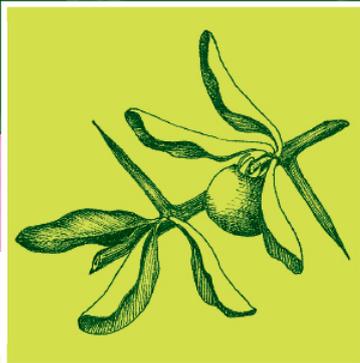


Dovyalis

Friends of Bendigo Botanic
Gardens Inc. Newsletter

Edition 12 Spring 2020



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This newsletter is named after *Dovyalis caffra*, the South African Kei Apple Tree which is a heritage listed tree in the Bendigo Botanic Gardens

From the President

Growing Friends' activities have been suspended for over six months now. The Botanical Illustrators have had zoom sessions, as has your committee. I would like to thank all those members who have continued to support the FBBG. It is my hope that as restrictions are lifted, outdoor work will be able to resume with COVID safe practices in the not too distant future. In the meantime, the garden staff are continuing to look after the gardens with help from Ulumbarra theatre staff. Thanks also to the staff who have been keeping our propagated material going so that we will have something to sell when plant sales are allowed.

Anne Bridley- President FBBG

What's been happening in the gardens...?

Kirstie Paterson - Team Leader, Bendigo Botanic Gardens

Spring is definitely evident in the gardens now. The flowers are popping, the leaves are reappearing and the weeds are of course letting us know they are still around. Covid is still with us and restrictions have been in force for seven months now. There are signs around the buildings regarding hand cleaning, social distancing and the mandatory wearing of masks. The aviary has been closed under the DHHS restrictions as well.

The increased use of the gardens has been startling. Here are some figures for you, based on our pedestrian counters. In May-July 2019 there were 5,237 visitors to the GFTF whereas there were 19,764 visitors in the same period this year. We saw this increase right across the public open space sector as people were searching for places to exercise and get out of the house while covid restrictions were in place. It is a privilege to provide these spaces for people to visit, exercise and hopefully learn a little about plants at the same time. I'm very proud of the way staff and visitors have been able to co-operate in the gardens under these trying conditions. Well done everyone!

We have had a few new temporary staff added to the team. We have had 3 members of the Ulumbarra Theatre staff working with us at the gardens. David, Emily and Melinda (David has since returned to Ulumbarra). As the theatres are closed due to covid they were redeployed into other areas of council and luckily for us we were able to grab three staff members. They have been invaluable to us at the gardens, their enthusiasm to pick up completely new tasks, and work in a very different environment has been outstanding and we consider them a part of the Bendigo Botanic Gardens team.



Melinda Kruse (left) & Emily Gorham-Nolan

What's happening in the Gardens cont'd

Kirstie Paterson - Team Leader

With the extra staff on board, it has enabled us to get a lot of the large tasks completed in the gardens.

- The pruning and removal of sections of the viburnum hedge on Scott street
- The complete mulching of the GFTF and many of the heritage beds too.
- Edwardian garden revitalisation
- Tulip and annual plantings
- Stencilling the path from Scott street to GFTF (one of the Ulumbarra staff's first task - might explain some of the increased use of GFTF)
- Planting of the GFTF hedge



The mammoth task of mulching the gardens beds has been underway over the past couple of weeks. Approximately 300 cubic metres of mulch has been placed on the GFTF garden beds, which will help with the weed suppression and water retention this summer.

Now that the frosts have decreased we made the decision to revamp the lavender bed. We have planted some fresh plant stock, taken out some of the

underperforming varieties in the garden and mulched the beds to help with the hot summer conditions. I can't wait to see the spectacular flowering of the lavenders this summer.



Bendigo tourism has been running the 'BLOOM' campaign which covers the attractions on display in Bendigo over spring. You may have seen the Tulip display curator talks and conservatory tour that are currently available online. As part of the 'BLOOM' initiative the Botanic Gardens will feature with a virtual tour of the gardens. Claire our Apprentice wanted to show her talents and spent the day in front of the cameras, filming interesting facts and features of the gardens. This will allow people who can't travel at the moment due to Covid restrictions to see the beauty of the gardens. Claire did a marvellous job and we look forward to seeing the end result. It was great to show the younger generation of gardeners coming through.

Left: Claire setting up for her virtual tour

If you happened to look at the sales area in the gardens at the moment you would see, or not see, any tables or plants out there. We have moved all the tables out in preparation of having the whole area re-gravelled. It was looking

a little worn and thought this would be the best time to fix the problem. All in readiness for when restrictions ease and the friends can sell their wares again.

That's all from me now, just a reminder the Bearded Iris are starting to flower, so pop on down and have a look through the gardens and have a chat with the staff. We are always up for some plant chatter - at an appropriate social distance of course.

Thank you and stay safe, Kirstie

Twentieth anniversary of Friends of Bendigo Botanic Gardens

Support and advocacy for Bendigo's Botanic Gardens - 2000-2020. A brief history. - Judy Milner

Year 2020 marks the 20th anniversary of the Friends of Bendigo Botanic Gardens and we had planned some celebrations to recognize this event. Due to Covid 19 however, activities are on hold until all restrictions are eased.

In October 1999 a Public Meeting was held where a motion was carried that, "We establish The Friends of Bendigo's Botanic Gardens as a community group sponsored by the Council of the City of Greater Bendigo". The First Annual General Meeting was held in March 2000 when a committee was elected with Glenys Anthony as president. Committee meetings following this were held in members' homes with general meetings held at Golden Square Senior Citizens Club Rooms.

During 2000 a 'Deed of Delegation' was drawn up with the City of Greater Bendigo formalising our legal responsibilities. A logo was developed, speakers were arranged, excursions organised, and regular newsletters were sent out.



We also affiliated with the Association of Friends of Botanic Gardens, Victoria (now a National Body) and formed various sub-groups. In 2002 the council set up a Parks Advisory Committee and two of our members were invited to represent the group. This was an ideal way keep communication going between the council and the Friends.

In 2005 the Friends successfully lobbied council to repurpose the unoccupied caretakers residence at the White Hills Botanic Gardens as a home base for The Friends as well as a Parks Staff resource centre.

In 2006 a Heritage Significance, Assessment and Strategy (Lee Andrews and associates) was completed. This document became a key guide when formulating future developments for WHBG. In 2007, the 150th anniversary of the gardens was marked with a week of celebrations and the refurbished care-takers house was named as 'The Samuel Gadd Centre' (acknowledging Samuel Gadd who was curator from 1875 until 1903). The following year saw the Friends launch a coloured visitors' brochure and a booklet 'White Hills Botanic Gardens, Bendigo 1857-2007'. In 2008, a Master Plan was commenced by Kevin Walsh and wide consultation occurred. This plan was adopted by council in 2010 and the gardens were then referred to as Bendigo Botanic Gardens, White Hills. Brad Creme was appointed Curator in 2012 and the Friends became Incorporated in 2013.

In 2015 the first edition of the upgraded Dovyalis Newsletter was launched, the name relating to a significant plant (Kei Apple *Dovyalis kaffra*) in the gardens.

A key feature of the master plan was the proposed significant expansion of the gardens onto adjacent land, to be called the Garden for the Future. Following extensive planning, construction started in 2017 and the GFTF was finally opened with a community day in April 2018.

The Friends have made substantial financial contributions to the gardens over their first twenty years which total well in excess of \$82,000. Most of the money is raised from plant sales, with guided walks, contributions from the illustrators and books sales adding to the funds.

The **Growing Friends** sub-group was active from the earliest days of the Friends and was originally known as the Propagation Group. The group moved from the council nursery to the White Hills BG in 2007 where a nursery

for plant sales to the public was set up and gardening activities continued. A **Botanical Illustration Group** was formed in 2005 and involved regular sessions and workshops with visiting tutors. In 2007 they relocated to the new facilities at White Hills. Visits to other groups and exhibitions were held and by 2008 they were exhibiting themselves at various venues. The illustrators have been widely praised for the standard of their work. **Garden Guiding** has always been an important role for the Friends. As well as special open day walks for the general public, many tours have been provided for local and regional groups.

The Friends have participated in many other activities to involve the community and to increase their own knowledge. These have included, guest speakers at meetings, educational activities with school children, community displays and talks, and attending horticultural conferences. We are proud of the wonderful improvements to the gardens in the last twenty years as a result of collaboration between Bendigo Council and the Friends Group.



We will resume our activities to support the gardens once the pandemic allows.

The upside down geological relationship between the Bendigo Botanic Gardens and The White Hills

By Eric Wilkinson (FBBG member and retired geologist)

The Bendigo Botanic Gardens were known as the White Hills Botanic Gardens for a long time, taking their name from the suburb of White Hills. The suburb in turn took its name from the gravel topped White Hills, a prominent landscape feature roughly parallel to, and about a kilometre east of, today's Bendigo Creek. The quartz conglomerate which caps the White Hills looked predominantly white when viewed from a distance, which of course is what led to the name. Gold was found in hill wash on the sides of these hills by diggers prospecting north along the Bendigo Creek in the gold rush days of early 1852. The gold was soon traced to its source, and it was not long before shafts were being sunk, with great difficulty, through the hard quartz conglomerate, and gold being won from the bottom layers where it had been concentrated. Some of these shafts are still visible in the Chinese Diggings Reserve on Fifth White Hill. The early miners numbered the hill-top gravel caps from south to north

from First White Hill to Seventh White Hill. These hills were named for the first time on the 1992 Eaglehawk 1:10,000 geological map, based on my research into early mining lease records. Many of the miners working these gravels were Chinese, and they dug round holes rather than the rectangular holes favoured by other miners. John

Lindner is writing a book about the Chinese Diggings Reserve which will give a lot more detail about this area and its history.

The Bendigo Botanic Gardens are situated almost entirely on the flood plain of Bendigo Creek, so most of the gardens have been developed on fertile alluvial soils above alluvium of Pleistocene age. The present course of Bendigo Creek is a straightened, man-made drain but the lagoon in the old

gardens preserves a short stretch of the original meandering creek. The only high ground in the gardens is on the eastern side, where Ordovician bedrock rises from behind the Samuel Gadd Centre across to the lower end of the main drive down from Napier St. The western side of the Bendigo Creek valley is on the west side of Kennewell St, just outside the western boundary of the gardens reserve, where a steep embankment of Ordovician bedrock coincides with a major fault known as the Whitelaw Fault. This is the escarpment resulting from reactivation of this ancient fault line in late Pleistocene times when the land west of the fault line was raised by about 15 metres.

Although the surface geology of the Bendigo Botanic Gardens as we see it today is simple, the geological history of the Bendigo Creek Valley is quite complex, and the hill-top gravels at White Hills are a significant part of the

story. The gravel outcrops of the Seven White Hills are aligned from south to north, and mark part of the course of a Late Cretaceous ancestor of Bendigo Creek. Towards the end of the Cretaceous Period, around 70 million years ago, there were earth movements in Victoria associated with the separation of Antarctica from Australia, which led to a significant uplift of the highlands and greatly increased erosion. Gravels consisting almost entirely of quartz pebbles and boulders, and alluvial gold, were deposited in reactivated stream valleys, including this ancestral Bendigo Creek, which

was clearly a much more vigorous stream than the current Bendigo Creek. Dinosaurs still roamed the land when these gravels were deposited. Similar gravel deposits occur widely across the goldfields of North Central Victoria, but White Hills at Bendigo is the type locality for the formation name of White Hills Gravels. In earlier geological literature and maps these gravels were generally given a Late Tertiary age, so it was a rather significant change to suggest that they were about 55 million years older than previously thought.



White Hills from Echuca railway,

Bendigo Botanic Gardens and The White Hills cont'd

Eric Wilkinson

Over a period of many million years in the Palaeocene and Early Eocene Periods the landscape of this part of Bendigo was greatly changed by erosion. Silica and iron oxide had cemented the loose gravels into very hard quartz conglomerate, much harder than the more easily eroded Ordovician bedrock. The former hills on each side of the Late Cretaceous valley were eroded away and replaced by valleys, leaving the hard, cemented gravels as the high point in the landscape with new valleys to the west and east as lateral streams. This is an example of inverted relief, also known as reverse topography. What this means is that 70 million years ago the Bendigo Botanic Gardens site was high land, and the now elevated White Hills Gravels were on the valley floor. By around 50 million years ago this had been reversed with the former valley floor now being the high ground. The eastern lateral stream is Back Creek, and the larger western stream was the forerunner of today's Bendigo Creek, which had its own complicated geological history. I am intending to make this the subject of a future article. Just to tantalise a bit, that part of the story includes the invasion of the Murray Valley by the sea in Oligocene times, and that sea reaching as close to Bendigo as Huntly.

The Bendigo Creek we see today is relatively young, geologically speaking, and in its course from its source on the Big Hill Range through Bendigo it is in part an example of a superimposed stream which has established a new course across an older flood plain. There are several points along its course down through Bendigo where it runs across Ordovician bedrock rather than alluvium. One such case was "The Rocks" at Golden Square, and it was the finding of gold there in late 1851 which led to the first Bendigo gold rush. Other rocky stretches of the creek included View Point at Charing Cross, and Emu Point at Lake Weeroona.

The youngest alluvial sediments to be seen at Bendigo are man-caused. In the early gold rush days hundreds of miners won gold by 'puddling' the richly auriferous alluvial deposits along Bendigo Creek and its tributaries, and other streams draining the goldfield such as Myers Creek. This activity sent considerable volumes of silt and clay down the creeks, which covered the natural alluvial deposits. It was known as sludge, and was the subject of an official enquiry in the 1890s.

Daphne genkwa, (Lilac Daphne)

Kirstie Paterson - Team Leader, Bendigo Botanic Gardens

Family: Thymelaeaceae.

Other genera of the family that we have in the Botanic Garden are *Pimelea* and *Dais*.



Lilac Daphne
September
2020

This beautiful deciduous species certainly had heads turning this winter. Located in our 'Around the World' garden this *Daphne* is situated in the fruit section next to the *Pistaschia vera*.

Daphne genkwa is originally from Southern China where it is used in traditional Chinese herbal medicine. This plant has a history of herbal use going back over 3,500 years. It is commonly used in Chinese herbalism, where it is considered to be one of the 50 fundamental herbs. According to numerous herbal texts the flower buds are used to control many ailments. But a bit of caution is needed as every part of the *Daphne genkwa* is poisonous to humans.

The vibrant purple flowers really stand out in the garden, as they flower before they leaf. The flowers appear in clusters in the leaf axils of the previous year's growth. They are only faintly scented; however the foliage that follows the flowers is attractive and will turn an attractive shade of yellow in the autumn.

D. genkwa grows to about 1.5 x 1.5m in a full sun position, though it does seem to love good drainage. We have it planted on a mounded garden bed.

I think with all of the comments we had about this plant, we need to propagate this plant for future sales. Cuttings of half-ripe wood, mid-summer are the best way to achieve this.

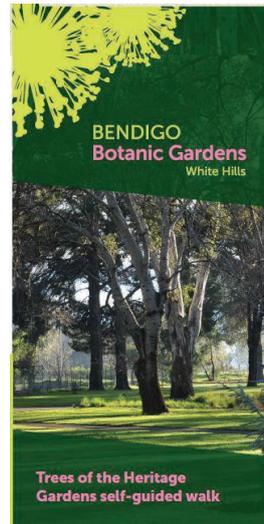
Please keep an eye out for this plant at the end of next winter as it will certainly become a favourite.

New Guided Tree Walk for the Botanic Gardens - Heritage Precinct

Friends of Bendigo Botanic Gardens in conjunction with Bendigo Bank and City of Greater Bendigo

A Tree Guide Brochure for the heritage section of the Bendigo Botanic Gardens has been finalised. This was instigated by Jane Cleary of the Friends with assistance from her daughter Lucy. Together they provided the tree information and pinpointed the locations.

This information was collated by the Friends and Kirstie Patterson (Team Leader BBG) arranged for council graphics staff to do the layout. We appreciate funding provided by the Bendigo Bank to cover costs of printing multiple copies for distribution to visitors. The Bendigo Bank Branch at White Hills closed recently and wanted to contribute to the gardens. This brochure will be an added tool for the Garden Guides while taking their guided walks. Copies will be available from the Samuel Gadd Centre brochure rack.



Get to know our Illustrators

Heart and Hands – Catherine Hayman



For as long as I can remember there have been two things which have always given me joy – being in nature and singing. Some of my earliest memories are of singing to my newborn sister and falling completely in thrall to the fluffy blue of ageratum flowers. Growing things and drawing flowers is something I have done for a long time, for my own enjoyment.

In January 2016, after retiring from over 30 years in the Federal Public Service, I moved back to Bendigo with my husband. Straight away, after watering the garden and unpacking the house, I went hunting for a choir.

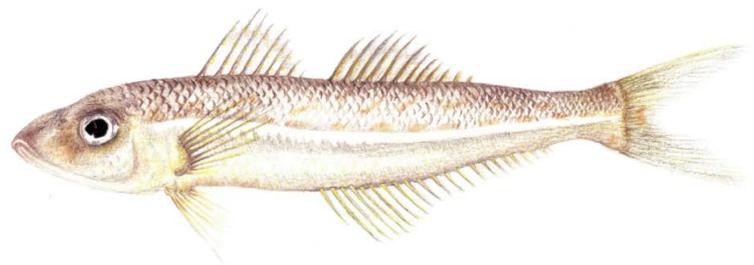
My ‘post-retirement plan’ also included learning how to propagate native plants...so a trip to the Bendigo Botanical Gardens and finding out about the Growing Friends and the Botanical Illustrators was just a matter of time.

Justicia carnea (Brazilian Plume Flower, in my garden) Ink pen 2018

Through the illustrator’s group I have been able to participate in workshops in watercolour techniques, using coloured pencils and blending different methods, taking my time to look deeply and more accurately. I aspire to be able capture the ‘essence’ of a flower or growing plant...in the moment that they are alive and growing. There is still so much more to learn. There is no shortage of inspiration!



In progress: Autumn Rosehips 2019
Coloured pencil



Sillago flindersii (School Whiting, Workshop with Chris Rockley 2018) Coloured pencil

Art work by Catherine Hayman

Gardens of Regional France tour 2019

Pam and Anthony Sheean - FBBG members

We were very fortunate to participate in a tour of regional French gardens in September 2019. Travelling through Normandy, The Loire Valley, Dordogne and the Bordeaux regions we experienced superb formal gardens of famous Chateaux, artfully sculpted contemporary gardens and medieval cloister and potager gardens at the peak of the autumn harvest. Every garden we visited encapsulated the notion that gardens in France are special and perhaps like nowhere else, their gardens are their own special art form.

We visited 17 gardens in France, these are 8 of our favourite gardens.

Monet's Garden at Giverny in Normandy

Claude Monet's garden in Giverny is probably the most famous garden in France, with over 50,000 visitors annually.



There are two parts to Monet's garden; a flower garden called Clos Normand in front of his house and a Japanese inspired water garden on the other side of the road, where his famous water lilies are to be found.

Claude Monet did not like organized or constrained gardens. He married flowers according to their colours and left them to grow rather freely. He drew inspiration for his painting from this profusion of colour, form and light.



Gardens of Regional France tour 2019 cont'd

Le Jardin Plume or The Feather Garden



Jardin Plume in Auzouville-sur-Ry is the brainchild of artists Patrice and Sylvie Quibel. There is an overwhelming sense of movement and fluidity with large plantings of herbaceous perennials, ornamental grasses, sculpted hedges and formal box garden beds.

The box hedges are filled with vibrantly coloured flowers, interspersed with grasses. The meadow areas are mowed into regular squares adding formality to the informally swaying grasses and original fruit trees.



Le Jardins d'Etretat

Le Jardins d'Etretat is an experimental garden, reconceptualised and restructured in 2015 from the original historical garden. The garden was owned by the famous actress Madame Thebault, a close friend of Claude Monet, who came frequently to paint at Etretat.



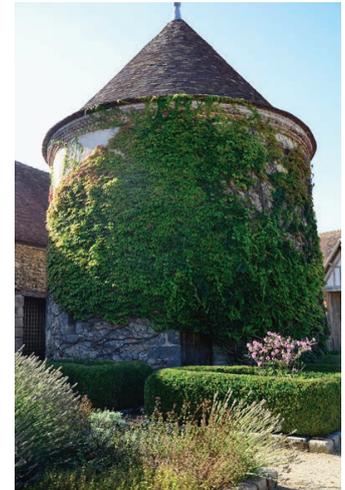
The gardens at Etretat are filled with whimsically trimmed evergreen shrubs representing the natural landscapes of Normandy, interspersed with modern sculptures and surprising niches displaying the artwork.



Gardens of Regional France tour 2019 cont'd

Jardin Medieval des Bois Richeux

Moving from Normandy to the Loire Valley our next garden is the 12th century farmhouse garden of Hubert Moreau. He recreated the medieval garden using a 13th century plant list he discovered in the old farmhouse.

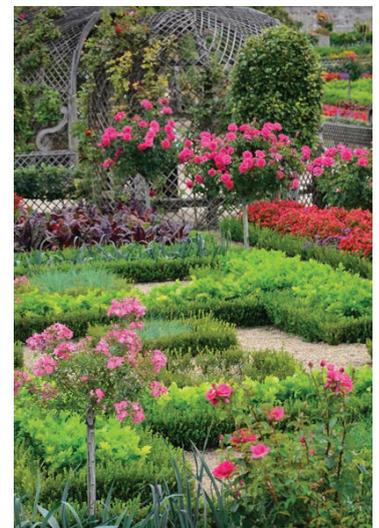


The garden beds are edged with wicker and box hedging, each filled with historical plants like wode, madder and ladies mantel. Hubert uses these ancient herbals and fragrant roses to create his own perfume. The dovescote at the farm is thought to be the oldest in France.

Chateau Villandry

The famous Chateau Villandry was built around 1536 and is the last of the great chateaux built along the banks of the Loire River during the Renaissance. The enormous and beautiful ornamental vegetable gardens are made up of nine squares of equal size but with differing geometric designs. These are planted out with vegetables of alternating colours and foliage all designed to create a harmony of hue and form, but never intended to be eaten. There are two planting schemes each year, one in spring and the other in summer, using about forty species belonging to eight botanical families.

There are six other gardens at Chateau Villandry. There is the Ornamental Garden next to the chateau, with four squares which make up the love gardens; the Water Garden is centred around a large pond in the form of a Louis XV mirror; the Sun Garden, the most recently created, consists of the cloud chamber, the sun chamber and the children's chamber, all planted in complementary colours; the Maze is planted with hornbeam and symbolises man's path on earth; the Herb Garden is a traditional garden of the middle ages and the Woods look down on the gardens, chateau and village.



Gardens of Regional France tour 2019 cont'd

Prieure Notra Dame d'Orsan

At the eastern end of the Loire Valley is the Prieure Notre Dame d'Orsan. Originally owned by architects Sonia Lesot and Patrice Taravella, they restored the ancient abbey, founded in 1107, and created a garden inspired by the monastic tradition of the middle ages.



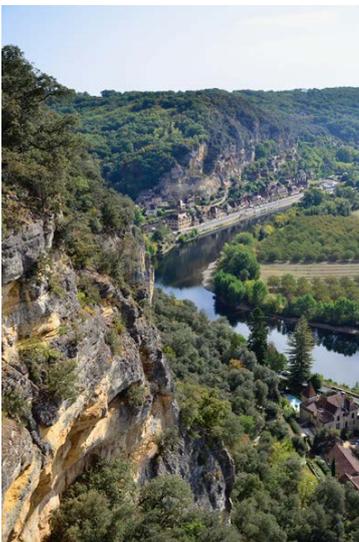
With eleven individual garden rooms, each has a distinctive character, function and symbolic resonance. There is the herb garden, the rose garden, the circular potager, the fruit garden and the parterre planted with wheat.



Chateau Marqueyssac

Moving into the Dordogne, standing on a high cliff above the village of La Roque-Gageac is Les Jardins de Marqueyssac. After extensive restoration work, the garden was opened to the public in 1997 and is the most visited garden in the Perigord.

Here there are 150,000 hand clipped box trees shaped into interlocking mounds, swirls, balls and cubes, looking for all the world like a flock of sheep.



There are three circuits around the cliff top garden, all leading to the Belvedere, a fabulous balcony 130m above the river, giving an exceptional view of the Dordogne Valley.



Gardens of Regional France tour 2019 cont'd

Jardins de l'Imaginaire

Located above the town of Terrasson, these public gardens were designed by American landscape artist Kathryn Gustafson in 1996.

They are a contemporary interpretation of a classic form of terraced gardens with thirteen themed gardens intended to excite the senses and stir the imagination



The Elemental Gardens have a golden ribbon of steel snaking through the trees; water plunges from the Sacred Woodland into the Water Garden featuring a walkway of fountains and the rainbow pool and 2000 roses fill the air with an intoxicating perfume in the Rose Garden.



Group activities are currently suspended until Covid restrictions are eased.

Committee Meetings

The monthly committee meetings are held from 9.30am-11.30am on the third Tuesday of each month (except for December) at the Samuel Gadd Centre, Bendigo Botanic Gardens. - **currently held by zoom from our homes.**

Office bearers are elected for 2 year terms and the annual meeting is usually held in August but deferred this year.

Growing Friends - **currently suspended.**

The Growing Friends propagate plants for the gardens and for sale as well as assist the park staff in the gardens. They meet each Tuesday (9.30am-11.30am) at the BBG nursery (behind the Samuel Gadd Centre). Plants are available for sale during Growing Friends times. Two major plant sales are held each year - Spring and Autumn.

Botanical Illustration Group - **currently suspended.**

Meet Saturdays 9:30am – 4.00pm & Wednesdays 9:30 am – 12.00pm at the BBG Samuel Gadd Centre.



Wood duck family on the lagoon BBG - Spring 2020

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