

How do you manage your orchid collection without relying on artificial heating and/or cooling?

By Julie Copely-Bishop

Through being a member of orchid societies in South East Queensland for a number of years, I have had the pleasure of viewing the collections of many hobbyists. Many of these growers are known for their competition standard orchid blooms. Over time they have established their bush houses with cooling fans, heating systems and water walls as well as timed misting and watering systems and other quite sophisticated technology. At the other end of the spectrum are those who have set up micro climates in terraria and wardian cases suitable for the many miniature orchids now available to hobbyists in Australia. While these ideas are thought provoking, I would find the set-up, maintenance and running costs prohibitive. As I live in South East Queensland with an overall great climate of warm to hot days and an adequate rainfall to suit many orchid species, I attempt to provide the best environment and care I can to manage my orchid collection. That said, it has not been without difficulties as I have to adapt to a lack of physical space in which to site my bush house. Secondly, in the past I have added to my collection without any rhyme or reason but just for the sheer pleasure of the process. I truly enjoy the whole orchid show experience. On reflection, I now think a significant influence on how I manage my orchid collection has been drawn from my father's experience of his orchid hobby. From the 1950s my father devoted his spare time to grow his beautiful blooms initially only with the aid of the sun, tap water and a very well-maintained basic fern house. This passion lasted throughout his lifetime.

I work within and accept, most of time, the environmental conditions that I have to grow and flower my orchids within practical parameters, but without diminishing the pleasure I derive from my rewarding hobby. I see the miniatures as especially advantageous because my physical space is extremely limited. The rewards are seeing the little brown flower from my cork mounted *Epigeneium* with its "look at me" expression - just exquisite. The Orchidaceae offers such a wide variety of orchid flowering habits to suit specific conditions to hold the interest of a hobbyist such as myself. But I still regularly over-reach my orchid growing knowledge, ability and better judgement so it has been an exceptionally slow and expensive learning curve to bring a distinct focus to my collection. Even now I can be side tracked by a showy and fragrant cattleya on a trade table. Other unsuitable impulse buys I generally have to move on to friends and family as I do not have their appropriate growing conditions or the space in which to accommodate them. I live in a senior's unit that has a small front veranda and an equally small back courtyard.

I grow my collection within the natural conditions that I have without relying on creating an artificially heated or cooled environment. Having only a small back courtyard, I use the only part not concreted to site my tiny, tiny bush house. The house is actually two smaller greenhouses from a local hardware chain of the "assemble yourself" variety now cobbled together with cable ties, hockey straps and covered with 70% shade cloth (not the provided plastic covers) to hold it all altogether. The structure is wedged in between the step hand railing and a two metre wooden fence of the next unit, not ideal but the chances of it taking off in a storm like something out of the *Wizard of Oz* is pretty slim. I replaced the chip bark on the floor with



My bush house

drainage gravel so I can water in the warmer months to encourage humidity. This has the added advantage that the resident toads are discouraged from setting up camp underneath. Creepy when the chip floor moved.

As the front part of the bush house sees the sun earliest in the day I house a few *Coelogyne* such as *Coel. viscosa*, *Coel. pandurata* and *Coel. massangeana* and others that flower well and a few remaining larger Bulbophyllums such as *Bulb. Wilmar Galaxy Star* (what was I thinking?). My focus now is growing the smaller hanging Bulbophyllums such as *Bulb. alagense*, *Bulb. tingabarinum* and *Bulb. nanopetalum*. I am persisting, with limited success, in growing and flowering Lycastes such as *Lyc. campbellii*, *Lyc. bradeorum* and *Lyc. macrophylla* (still unflowered). These are housed on flat benches on either side of the entrance. Hanging from the ceiling at the rear of the bush house, the last part to receive the sun in the day for the longest time, are a number of mesh sheets from which I suspend my growing collection of miniature mounted orchids. The bare rooted varieties such as the *Chiloschista viridiflava*, despite being basically a mass of fleshy roots, appear to be doing well (they survived the last winter). They have the most delightful pale yellow flowers on a long stem as the reward for patience and attention. I find that they still need to be misted daily throughout winter as many are mounted on cork so they do not retain moisture.

Through the colder months I rely on the sun to warm my orchids. To aid this I wind up the front bamboo curtain that serves as a door for about half the day to prevent the air inside becoming stagnant. I also have laid a clear plastic sheet on the roof for the next couple of months to counter frosts. This sheet appears to have a warming effect in the house generally. When I fertilize I use warm water. Living in Logan the temperature can go down to 6°C or lower so I do not mist spray till the warmth of the day has spread through most of the house, which is well after midday. I know this goes against the accepted norm of watering earlier in the day in winter for the foliage to dry out before nightfall but this works fine for me. Being not totally bug proof around the base of the structure also aids air flow. The only miniature orchids that I have lost in these conditions are those that were really too young to cope and thrive in these conditions. These impulse buys are generally the ones that you really should walk away from at a Fair.

The other side of the courtyard is also devoted to my collection. This area is covered by 70% shade cloth where the majority of the plants are hung from the fold away clothesline such as a favourite *Trichoglottis atropurpurea* (syn. *Trgl. brachiata*) with its flowers of rich red colour with a white and purple lip. Another of this genus I have here is the *Trichoglottis loheriana* now known as *Staurochilus loherianus*. Among the other hanging orchids is the miniature *Ascocentrum christensonianum* as well as a *Pelatantheria insectifera*, another favourite with its clusters of greenish flowers, with reddish brown stripes on the petals and sepals. The lip is white and fuchsia, quite striking. My bare rooted Vandas are also homed here. Their healthy green tipped roots indicate that they are happy in this position as are the *Trichoglottis*. There are also two metal stands of mainly mini-cattleyas and a few spur of the moment totally unsuitable buys such as a *Thunia marshalliana* commonly known as the “Chinese ground orchid” or “bamboo orchid”, which I still hope will flower in my back courtyard. If it flowers it will indeed be the triumph of hope over experience.



My covered courtyard area.

The loss of the clothesline was not a burden as it was designed by someone who has never hung a load of wash out. The lines are strung very close together and the fold down line is positioned on the wrong side of the courtyard to be of any use. The rear of the six seniors units is also backed by a two metre fence and one large tree directly behind me. Despite my orchids being homed in such an enclosed area as they are between two two-metre fences and a privacy screen, the air flow is still sufficient as long as I keep all the pots with significant space around them. It is a truism not to let your plants be crowded as you will end up spending so much time removing mealy bug etc. Although not as small a collection as it will eventually be, it allows for several daily visits to check on any little fly-in leaf and bud munchers as the bush house and the partially covered courtyard

area are not bug proof. The bane of my life is the hunt for garlic snails (slicing up potatoes and out with a torch after dark), random slugs and mealy bug. To aid humidity, I keep the concrete floor well hosed throughout the day as well as regularly mist spraying the bare-rooted varieties.

The other space I share with my orchids is the front veranda of my unit, which has the advantage of receiving the morning sun and adequate light. While partially covered by an awning the veranda is open to the elements. My Vandas were initially hung from long green hooks off the front veranda gutters. This proved to be unsuccessful and they now reside in the back courtyard. Anything in bud is moved here for me to keep an eye on while I have my morning coffee. Sharing the table is a number of *Doritis*, not competition quality, but great bloomers and totally enjoyable for their range of colours from the delicate to the vibrant. The veranda is basically a retirement village for the shy bloomers of my collection such as a number of Bifrenarias, a *Eulophia guineensis* and three *Catasetums* and the remainder of my larger *Cattleya* collection that are resistant to flowering but for which I still have hope. Again, I regularly water the concrete floor in the warmer months from a small 100 litre water tank on a stand in the back corner of the veranda to aid humidity as there is no front tap. I mist spray my orchids from a wheeled 9 litre water carrier.

In hindsight, I think a significant influence on how I manage my orchid collection and not to get caught up with the mechanics of it has been drawn from reflecting on my father's experience of his orchid hobby. I have absolutely no idea of why, when and how my father started his collection or where he purchased his supplies. I only have a child's memory that is clouded and distorted by time of what I remember as a really large bush house built in the back corner of our suburban backyard. It was constructed from tree trunks cut and dragged from nearby bushland at Clifton Hill/Moorooka, Brisbane and covered by chicken wire. To provide mottled shade he interlaced fir branches along the sides with the larger fir branches being thrown on the flat top. I think in later years these were replaced with the yellow corrugated plastic sheeting so popular at that time. I remember dirt floor walkways with masses of delicate maiden hair fern growing underneath the wooden slat benches. His only watering system was a hand held hose and the only heating system, the sun. Without all the benefits of cooling fans and heating systems he still managed to grow exceptionally beautiful *Cymbidium* and Slipper orchids. I have childhood memories of his huge pots of cymbidiums being brought into our family home for reverent display. But I am sure that he would be amazed and delighted at the varieties now available to hobbyist orchid growers. Unfortunately before his passing his orchid collection had become unmanageable due to its size and his ill health and many fine specimens were lost.

Observation of the physical environment in which my orchids inhabit I believe is the key to the management of my orchid collection: to be flexible as to where I place certain species if the sun direction or its intensity changes throughout the year. Past experience has also shown I need to keep my collection within certain constraints especially as to numbers and to what species I can successfully grow and flower. Without having to rely on artificial cooling and heating technologies I also find hand watering the plants allows me the time to see if they are flourishing and to keep an eye on pest control. While I do understand the practicalities and necessity of having an enhanced or alternate environment if you are going to grow and flower blooms in quantity not indigenous to this climate, but it is not for me. The bonus in writing this essay has also been in revisiting my father's photographic slide collection enabling myself and my eldest daughter to share his love of orchids.



One of my father's unnamed
Cymbidium orchid.