

THE AUSTRALIAN ORCHID FOUNDATION

Essay Competition 2018

2nd Prize Winner

By Julie Copley-Bishop

“My Greatest Orchid Disaster” -- so far

There will probably be a mass eye roll when I tell my sad tale of how I overreached my orchid growing ability and knowledge. Peat. Yes. Peat. I thought its use as the higher ratio of my main growing medium would be a good idea as I had read that a fine mix of bark, perlite and peat moss was a suitable growing medium for miniature epiphytes. In hindsight wider reading of the literature on the uses of peat moss as well as its ratio to perlite would have saved me grief. Fortunately I also had miniature orchids that were safe from this new regime being bare rooted or mounted on cork so out of the danger zone. But I still had potted *Bulbophyllums*, a few *Cattleyas* and was slowly building a collection of *Promenaeas*, *Restrepias* (so unkind to say that their flowers look like cockroaches), *Pleurothallis* and *Zootropion* known also as *Cryptophranthus* (the magenta flowers of the *atropurpurea* are delightful) that were not.

I live in a senior's unit that has a small front veranda where I hang bare rooted *Vandas* from the roof guttering and an equally small back courtyard surrounded by six foot paling fences which are light and air flow inhibiting. I site my bush house on what was a garden bed as the rest of the yard is concreted. The floor of the house is covered with a layer of drainage gravel that is easy for me to water and aids humidity. My bush house's most recent incarnation, as previous ones have rusted away, is two Harvest House X-up plant stands facing each other over a metre apart. They are joined together at their highest point by salvaged metal rods. The whole structure is covered by 70% shade cloth and secured by cable ties. The stands come flat packed and need neither strength nor an engineering degree to assemble. It is just a matter of lifting up out of the box, clipping shelves into place and dropping the roof frame on - easy. This gives me ready access to two shelves either side at a reasonable height - the bottom ones not so much. While not ascetically pleasing it suits its purpose of not being in any way a permanent structure.

I grow my orchid collection within the natural conditions that I have without relying on creating an artificially heated or cooled environment. I use town water and hand water although a good misting hose attachment eludes me. Despite the occasional passing grass hopper or other bud and leaf munchers I leave the door open for part of the day to enable any breezes that are present to pass through as the house is flush to the dividing fence. Being not totally bug proof around the open base of the structure also aids air flow. The rear shelves which home the *Restrepias*, *Pleurothallis*, *Promenaeas* and *Zootropions* potted in small terra cotta pots have an extra layer of white 50% shade cloth. At this point in time this extra layer appears to be working well. Light intensity is variable in this location during different times of the day and the seasons. Several visits a day are important as I think the smaller orchids require more frequent attention. I initially had and probably still have too wide a variety of genera to learn about and care for.

In my collection I no longer have any orchids such as *Coelogyne*, *Lycastes* or the way too big *Bifrenarias* and *Cymbidiums* (the remaining unflowered ones exiled to the front garden). These shy bloomers were the mainstays of my collection for a number of years. A practical necessity for me is to regularly cull my collection. I am always happy to find new homes through friends and family of orchids that have grown lushly, no longer fit the focus of my collection or gobble up bench space. Over the past few years I am tending more to buy or order on-line for pick-up which allows time to research and rethink. Purchasing mistakes are made through impulse buying. Past experience informs (if I listen) as to what species I can successfully grow and flower.

I digress. I initially noticed that a number of the potted smaller *Bulbophyllums* and smaller *Cattleyas* were not thriving so I took one then another out of their pots to see what was going on. What I found was their roots were dying and that the bottom half of the potting mixture had become the consistency of slurry. Perhaps I had over watered? In some instances the tops of the media were quite solid to the touch. I use and prefer (most of

the time) terra cotta pots. I do crock the pots with pieces of styrene foam. While not my preferred option the bags of foam are light weight to carry.

On reflection I had used propagation grade perlite (really tiny) in combination with small size bark (OK) and propagation peat moss (not OK). The peat moss overtime apparently turns the media acidic due to its natural decomposing nature. The bag that it comes in from a popular hardware chain (on a much later reading of its information panel) states that it is ideal for acid loving plants such as azaleas and camellias. The bag does not say where the peat moss comes from only that 'it is carefully extracted from designated areas according to strict ecological cultivation standards.' This is a whole other issue widely covered in the research literature but it is now an incentive for me not to use it on ecological grounds.

For the mix I have since read that it is to be a ratio of 7 coarse perlite to 1 peat moss. As I was unsure at that point what proportion of peat moss I had used due to poor record keeping I did a massive repot and a substantial binning. I started the repotting with the miniatures such as the *Restrepias*, *Promenaes*, *Zootropions* and the *Pleurothallis* that in the main are fine and shallow rooted and like to be snug in their pots. Their roots rot readily so require good drainage. Opps.

I threw the remaining bags of peat moss and the propagation perlite out onto the front communal garden after reading in the US and Canadian literature that the peat moss is mined or harvested from peat bogs that do not regenerate, destroy the organisms that live there and release carbon dioxide into the air when the bogs are drained. The alternate argument presented is that the peat moss is vacuumed in very thin layers from the surface of the bog and is only a small percentage of peat reserves. Apparently Britain is planning to phase out peat moss for hobby farmers by 2020 and commercially by 2030. Complex arguments are offered in the research literature for both sides of the debate.

While my experience of using propagation peat moss and propagation perlite as the mainstays of my potting media may not be seen by some as a shock/horror tale it was for me. I derive significant pleasure from my hobby of orchid growing through watching seedlings grow to flowering size and hopefully to place on the show bench. In their care the more the better philosophy did not work for me. The lesson I learnt is to critically check the information labelling of bagged products as well as keeping up with the current research on all aspects of orchid care.

References

Higgins, Adrian (2017) 'Is this popular gardening material bad for the planet?' *The Washington Post*.
Priesnitz, Wendy, 'Does peat moss have a place in the ecological Garden?' *Natural Life Magazine*

Fig 1



Fig 1: *Zootropion atropurpurea*

Fig 2



Fig 2: *Promenaea* Dark Angel

Fig 3



Fig 3: *Restrepia guttulata*