

A Bit About *Rhinerrhiza divitiflora* (F.Muell. ex Benth.) Rupp

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Over the years, there has been a lot of words written on *Rhinerrhiza divitiflora*. From in-depth articles by experienced growers - to little snippets by first-time contributors in the various bulletins. It seems that many people have had differing experiences growing this well known and much loved member of the *Sarcanthinae*.

I have always been baffled by the volume of contradictory information that has been circulated with regards to its cultivation. I have to say right here and now that this is not necessarily erroneous information, merely contradictory. After all, who can judge another grower's results without knowing for certain what all the variables are from State to State, town to town and from bush-house to bush-house.

I distinctly remember reading an article in a very old ANOS group bulletin in which the writer described his experiences with *R. divitiflora*. His technique involved wrapping the poor plant up in sphagnum moss, ensuring that it was watered every day, and soaking in Condyl's Crystals or something similar about every second day.

I remember the words he next used, and I quote;

"Even then, you'll be lucky if you can keep your plant alive for more than a few months. I believe that it is best to leave this orchid in the bush as it has proved impossible to cultivate".

Perhaps the writer meant well and I have no doubt that he was completely honest in relating his experiences. But I must say that, in my experience and under my bush-house conditions, I'd have to doubt that a plant would last even a few days, let alone anything like "a few months". I would have to wonder if the poor writer ever considered that his technique could have been the cause of the demise of his miserable captives . . . let alone their salvation. The mind absolutely boggles, doesn't it?

The previous paragraph reminds me of an anecdote in an old book that dealt with life in Colonial Australia circa 1850s, in which a stockman described an attack on his dog by an unknown but "deadly" kind of snake.

The correspondent immediately made a deep incision at the sight of the bite. Into this he poured gunpowder, which he quickly set alight, no doubt with the dog's furious condemnation. He next poured half a bottle of OP rum down the dog's throat. (He makes no mention of what he did with the other half of the bottle!). Picking up the dog by the back legs, he proceeded to swing the miserable brute around in frantic circles, no doubt in an attempt to induce vomiting. (I imagine the desired result was attained.) He next cut a slit in the base of the poor dog's tail. Into this cavity he inserted a small section of the snake's own tail and packed the lot with salt before sewing it up. (The intent of this bizarre surgical procedure remains unclear.) He reported that the dog was feeble for several weeks and damn near lost its tail, but he did come good eventually, thanks only to the speedy response of a this medically astute bushman. One wonders if it was the snake or the cure that nearly claimed the poor dog's life.

The same must be said of the technique employed by our well-meaning orchid writer with regards to his deceased plants of *R. divitiflora*. It is doubtful if the writer had ever seen this species growing in the natural situation. If he had, he would surely have changed his cultivation practices.

There were occasions years ago when I mounted some species up with sphagnum moss packed firmly all around the roots. I can't think of a single species where I would recommend such action these days - the rotting of the orchid would be the inevitable result.

Over the intervening years I have observed an awful lot of orchids in the wild, representing every epiphytic and lithophytic species we have here in New South Wales and southern Queensland, and it has sure given me one hell of an education in the conditions and tolerances that each species has acquired.

Therefore, I sure wouldn't put sphagnum moss anywhere near *R. divitiflora*.

R. divitiflora is widely distributed along the east coast of Australia from the Barrington Tops all the way to the Atherton Tableland in northern Queensland.

I have not seen it any further north than the Calliope Range near Gladstone where it is very patchy in its occurrence. I don't know if plants from between Gladstone and Atherton are different in any way from those growing to the south of Gladstone.

Some books give the southern limit of distribution as the Hunter River, near Newcastle. I suspect that this is a case of following unproved hearsay from last century. I have never heard of anyone claiming to have seen *R. divitiflora* from that far south. There is even an old report of it being found near Berowra, a northern suburb of Sydney. This may be considered as doubtful. Personally, I haven't seen *R. divitiflora* growing any further south than the Comboyne Plateau. I am reliably informed that it is reasonably abundant on the eastern side of the Barrington Tops in places like the Karuah River.

Between Comboyne and the Sunshine Coast hinterland, *R. divitiflora* is a commonly encountered orchid. It prefers areas of typical 'dry scrub' at low to moderate altitudes and the further from the coast the better. However, it can be seen at quite high altitudes, although usually as rogue plants growing in ones and twos. I recall seeing a couple of plants high up near the summit of Mt. Lindesay at around 950 metres above sea level. Even so, there are numerous plants growing in a colony up on the Lamington Plateau at around the same altitude. Near Coffs Harbour there are plants living happily only a few kilometres from the coast. At mid altitudes of around 500 metres, *R. divitiflora* becomes far more abundant and can often be seen in extensive colonies.

R. divitiflora can be seen on finger-thick branches or on the trunks of two-metre thick forest monarchs. It is perhaps most frequently seen on small tree trunks of about 10-20 cms diameter. It is most often seen low down on its host, usually below three metres and occasionally only a few centimetres above the ground. It is not uncommon to see it perched

on either dead or living lianas and thick vines. Wherever you see it, it will nearly always be in reasonably dark conditions. This is a species that seems to seek out the slightly darker situations that most other species avoid. It doesn't seem to colonise damp creek borders at all. Nor does it seem particularly impressed by the ridge tops where many other species just love to grab a foot hold. *R. divitiflora* is definitely an inhabitant of flat areas away from the running water on the steeper parts with little vine or herbaceous growth on the ground below the canopy of the area. I guess all these preferences describe those "dry scrub" patches of rainforest pretty well, don't they?

As well as the dry scrubs, *R. divitiflora* loves to take root on the trunks and lower limbs of Hoop Pines (*Araucaria cunninghamii*). Up in the Bunya Mountains - southern Queensland, this is the only orchid apart from the good old tangle root orchid - *Plectorrhiza tridentata*, that I actually observed growing on the Bunya Pines (*Araucaria bidwillii*) that give the Mountains their name.

It may be of interest to know that there appear to be more Hoop Pines than Bunya Pines in the Bunya Mountains. Whereby the Hoops are often laden with epiphytes, the Bunyas don't appear to attract them at all, with the exception of climbing ferns.

It has only once been my pleasure to see *R. divitiflora* flowering in the wild. That was in October 1989 on an all too brief visit to those same Bunya Mountains. I had climbed onto a very large Hoop Pine that was laying on its side. I could nearly run along the trunk it so huge. On one of the side limbs there were two quite small plants of *R. divitiflora* in full bloom. The racemes were only around 10 mms long but they stood out for quite a way. As usual, I had left my camera in the car. This, was only going to be a five minute search. It turned into thirty minutes and I wasn't game to make it the full hour by going back for an icy reception at the car just to get the camera. Strangely, I didn't see any other plants of *R. divitiflora* around this spot. There were occasional specimens at other locations along the road threading through the pines but they were not flowering.

Perhaps the most rewarding observation I've ever made of *R. divitiflora* took place near Monsildale, close to Kilcoy in southern Queensland, in January 1993, when I came across a nice plant displaying two plump seed capsules on last year's raceme. And guess what . . . this time I did have my camera! I have never seen capsules, even withered ones, on any other wild plant of *R. divitiflora*.

Whatever pollinates this species has to perform faultlessly and with due haste as *R. divitiflora* is often called a "One Day Wonder", because the blooms only last between 24 and 48 hours before collapsing. A large plant can sprout up to ten inflorescences of around 30 cms length, with up to seventy or more flowers on each one. A specimen in full flight is one of the most magnificent sights in the Australian orchid world.

The flowers are peculiar to say the least. Big ones can be 75 mms across and are quite feathery, or to be strictly botanical, they are filamentous. The segments are very long and thin and rarely are these straight or organised.

A well flowered raceme is quite literally a 'fox-tail'. The column and labellum are tiny by comparison to the extra long segments. The overall colour is orange, with variations towards yellow and brown tones. There is some degree of transverse reddish barring near the base of each tepal. Perfume is very faint.

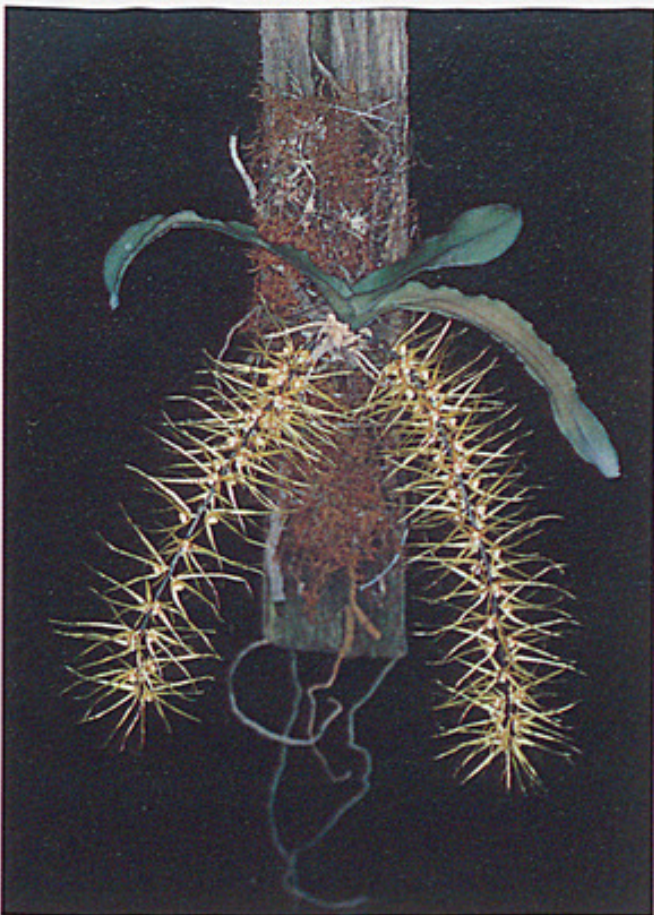
There is a school of thinking which suggests that all plants in a given locality will open their flowers on the one day. Some people even suspect that all the plants in the bush houses of, say Sydney for example, will bloom on the one day. While I can understand the reasoning behind this theory, observations in my bush-house do not lend any support to this idea at all. I have plants from all over the place and that's exactly how they flower - all over the place at varying times, in mid to late October, and even into early November. But never having scrutinised an extensive colony during the flowering season, I am not prepared to say this is not the situation in the field.

So put the sphagnum moss back in garden shed, as well as the OP rum, the Condys Crystals, the salt and the surgical kit . . . maybe you can keep the OP rum out for a while . . . but you may end up seeing snakes!

R. divitiflora has the extremely apt common name of the "Raspy Root Orchid". Its roots are covered in masses of rough, warty tubercules which look and feel for all the world like those of a wood rasp. These roots are up to 6 mms wide and are quite flat. They cling with great tenacity to the host and are not easily separated from it without inflicting a good deal of damage. As well as this, they can be over two metres long so it can easily be seen that this is one orchid that deserves a long lasting host of considerable length in captivity.

Plants of *R. divitiflora* can grow to quite large sizes. Big plants can have leaves up to 30 cms long and up to 5 cms wide. It is not a species that tends to retain its older leaves. Occasional plants will have up to 7 or 8 leaves on board but quite often a specimen will only have two or three big leaves and one just emerging. Plants can keiki and form really big clumps but keikiing is a comparatively uncommon occurrence. The leaves are usually very dark green and dull, no doubt a response to low light levels. They have sinuate or wavy margins and are quite thin and papery, but flexible. The apex of the young, emerging leaf is very serrated but becomes more entire with maturity.

R. divitiflora is a slow growing species that resents any disturbance to the root system, so you must give a lot of thought to its future needs. A long and skinny piece of cork is a terrific host. I also tend to favour that *Leptospermum* with the loose flaky bark which I still am not sure of the name, but which I am always recommending! I think it may be *Leptospermum attenuatum*. It grows on the ridge tops in the sandstone regions all around Sydney. The roots get under this thin, flaky bark and often don't emerge again for 30 cms or more . . . Raspy Roots just love it . . . and because the thin flakes are quite wide and more or less water repellent, they tend to keep the roots slightly drier, which I believe *R. divitiflora* appreciates. Hang it up near the roof of your bush-house where you aren't splashing it as you water the moisture loving "Sarcs" below. Fertilise as with every other thing and I can't really see how you could possibly kill it.



Grower, D.P. Banks.

D.P. Banks

Rhinerrhiza divitiflora, plant in flower



Grower, F. Martin.

D. Titmuss

Rhinerrhiza divitiflora, close-up of flowers



Grower, J. Roberts.

D.P. Banks

Rhinerrhiza moorei



Grower, D.P. Banks.

D. Titmuss

Dendrobium tetragonum var. *cactus*



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