
Year-end Notes on a Few Species and Keikis

Pl#301205-2. *Dendrobium crumenatum*, the “rain orchid.”

Dendrobium crumenatum Sw., J. Bot. (Schrader) 1799(2): 237 (1800).

Synonym: *Dendrobium crumenatum* var. *parviflorum* Ames & C.Schweinf. in O.Ames, *Orchidaceae* 6: 100 (1920).

Homotypic Synonym:

Ceraia parviflora (Ames & C.Schweinf.) M.A.Clem., *Telopea* 10: 292 (2003).

Common names

Pigeon orchid; Rain Orchid; Bag-shaped *Dendrobium*; Purse-Shaped *Dendrobium*.

This species is known from India, Myanmar, and Sri Lanka (Ceylon) into China, Taiwan, the Philippines, and throughout Indochina into New Guinea. In nature it is found in moderately shaded conditions in lowland areas, but has been reported as high as 900 meters (nearly 3,000 feet) in Myanmar.

It is generally, described as a warm growing species, but at some of the higher elevations in Myanmar, as well as in your editor’s greenhouse, it tolerates winter temperatures as low as 40°F. (+4°C.). In your editor’s summer shade house, the temperature has hit as high as 104°F., however at such a temperature extreme one should really be misting plants to keep the leaf temperatures down to prevent severe dehydration, but the mid-high 90’s day temperatures of your editor’s shade house is usually also a time of high humidity so those local temperatures have posed no apparent problems for this species (Fig. 1). Pseudobulbs are slender at their bases, but swell a few nodes above the base and are spindle-shaped, slender, and ridged, gradually changing from green to yellow with maturity. It’s a “warm” species, but has been tolerant down to your editor’s 40° “minimum” line.



Fig. 1. Pl#301205-2. *Dendrobium crumenatum*.
DSC_1777 Thur-02Aug-07.

Flowering

An individual flower usually measures a little over three centimeters across its widest portion; the lateral sepals. They are white with a splash of yellow in the throat, and may be faintly fragrant or fill the area with their fragrance (Fig. 2).

The number of flowers on a raceme appears to be a function of how long it has been since the last flush of flowers opened. As well, a plant that was given very



Fig. 2. Pl#301205-2. *Dendrobium crumenatum*,

DSC_5395

Thur-25Jul-13.

frequent showering (as was done during the summer of 2013 to keep leaf temperatures down), sprouted a great number of keikis.

If the frequency of the showers persist, they sprout healthy roots and may be separated from the mother plant and cultured on their own.

In the Victoria, Texas area, this species has been recorded flowering during July and August, but given an ambience in which it is watered more frequently, it has been reported flowering in March, and the month of May through September. This appears not to be a function of day/night length or some complex fertilizing technique, but dependent on the how often it is watered, whether by a greenhouse system or via rainfall. Given a “rain forest soaking” in the greenhouse or shade house, it is likely to burst into flower, showing blooms all along new and old racemes. Flowering has been attributed to the rain, but it may well be that flowering is also triggered in part by the sudden temperature drop that usually accompanies a rain storm. There seems to be no specific number of times it will flower from an old raceme, but at least two or three times appears not to be uncommon. The clue here is to continue to culture the plant. Don’t be in a hurry to cut off old inflorescences.

Following a good rain, they may sprout flowers or keiki growths; hence the common name of “rain orchid” - one that flowers after a rain.

A recent post from a newspaper appeared in the (internet) Orchids Digest Vol. 6 (247), Fri-06Sept-13. *Dendrobium crumenatum* was noted blooming in Nagar, India, “the result of seven years of patience, endurance and painstaking nurturing at... Bangalore... advised... to manure it with tender coconut water, besides covering the surface of soil with husk to protect the soil moisture. Even dead fish from... aquarium were mixed up.” From the ease with which this species has flowered for your

editor, one can only wonder why it took so long to bloom in that location. Perhaps it was pot-watered instead of the complete plant being exposed to the rain. For your editor, it has bloomed several times during the year for the last seven years, and in the OrchidWiz database, blooming has been recorded in February and May through September in the Northern hemisphere.

Current Status

In early November, 2013, two sizeable plants are in the warmest end of the Victoria greenhouse and both are rife with keikis bearing roots. The smaller one (easier to position for camera!) is shown here (Figs. 3 & 4). Note the profuse keikis on the plant in both the whole-plant picture and the close-in portion of the same plant.

Locally, much concentration is with constructing and installing flap-type doors to close off the opening to the air-pad cooling system during the cold season when the temperatures might be going below 40° F. However, thought has been given to building a long narrow box and planting a complete keiki-bearing raceme in it; then separating the plantlets when it becomes obvious they are well rooted and amenable to being potted as individuals. However, until time is



Fig. 3. Pl#301205-2. *Dendrobium crumenatum*.
DSC_5651a Sat-09Nov-13.

found for this project, the keiki-bearing parent plants are misted few times daily as is done for a number of others as well as other newly potted keikis.

Roots on the parent plants and keiki growths of *Den. crumenatum* are not of the fleshy type seen on cattleyas, vandas, and even some other *Dendrobium* species and hybrids. They are narrow and wiry as ones seen in *Dendrobium kingianum* and *Maxillariella tenuifolia*. As such, they are prone to drying out much more rapidly, and if subjected to a relatively low humidity level over several days, one may discover that masses of rooted keikis on a raceme no longer have living roots. It is a point well worth keeping in mind if one wishes to successfully culture these species. With this type of root system the dangers of both *over-watering* and *under-watering* are more critical.



Fig. 4. Pl#301205-2. *Dendrobium crumenatum*.
DSC_5650a (Close-in of rooted keikis) Sat-09Nov-13.

Pl#030205-1. *Trichocentrum lacerum* (Lindl.) J.M.Shaw. Orch. Rev. 120(1297, Suppl.): 16 (2012).

Synonyms:

- Oncidium stipitatum* Lindl. in G.Bentham, Bot. Voy. Sulphur: 172 (1846).
- Stilifolium stipitatum* (Lindl.) Königer & D.Pongratz, Arcula 7: 189 (1997).
- Cohniella stipitata* (Lindl.) Christenson, Lindleyana 14: 177 (1999).
- Trichocentrum nudum* subsp. *stipitatum* (Lindl.) Dressler & N.H.Williams, Selbyana 24: 45 (2003).
- Trichocentrum stipitatum* (Lindl.) M.W.Chase & N.H.Williams, Lindleyana 16: 138 (2001).

Flowers: 31May-05; 07Jul-05 (flowering & beginning to keiki); 01May-06; Tues-18Jul-06; 22Jul-07 (plantlets sprouting).

This plant came into your editor’s collection as *Oncidium stipitatum*, and as may be seen by the list of synonyms above, has been known over the years by various names. As well, your editor has seen hobbyists, *without really looking at the flowers*, and little botanical knowledge, but eager to tack a name on a plant “that

looks like....' have mistakenly labeled it as *Trichocentrum cebolleta* although a close inspection shows that the two species differ.

This species is native to the south-western area of Panama, but has been reported (without validation) from Colombia, Honduras, and even as far north as Belize. Again, this individual strongly suspects these reports (particularly the one from Belize!) to be cases of mistaking this species with another having terete leaves.

Trichocentrum lacerum, however, has a characteristic unusual in not only in its own genus, but in the genus *Oncidium* and other allies. Unless the plant is cultured under extremely dry conditions that virtually desiccate the inflorescence, after it has flowered (usually in late May to early June), plantlets (keikis) begin to sprout from various nodes along the raceme! By early November, it becomes really obvious it's time to sever the keikis from the plant and each other and pot or mount them as individuals (Fig. 5).



Fig. 5. *Trichocentrum lacerum* with keikis. DSC_5652 Fri-08Nov-13.

The particular plant was mounted on a rather small piece of tree fern, but it may be mounted on a tree branch section, or cork, or even potted, although its terete pseudobulbs are large and will eventually become procumbent. In its native Panama, it grows in deciduous forests with seedlings spreading to cultivated trees and shrubs in the Canal Zone town area. Culturally, and for the sake of convenience, it is easier to get a small plantlet started by mounting it growing upward in a tree fern pot, but one should realize that, as it grows, it will overhang the pot and its long (to 70 cm, 28 inches) leaves and inflorescence will hang downward.

Temperature:

As with *Den. crumenatum* and many others, it withstands winter greenhouse temperatures down to 40° F. with no difficulty. It might well withstand lower temperatures, but your editor doesn't care to experiment with seeing plants freeze! At the high temperature end, it's withstood summer temperatures of 105°F., but the usual general rule applies: keep the humidity high with high temperature-stress levels and the plants dried off and the humidity low at the very low temperature-stress levels. Of course this plant would do better if grown in warm conditions all year, but maintaining a Panamanian climate during a south-central Texas winter becomes economically impractical, and it's locally convenient that this particular tropical species is somewhat tolerant in its temperature demands.

***Phalaenopsis equestris* (Schauer) Tchb.f., Linnea 22: 864 (1850).**

This species is also much given to producing keiki growths (Fig. 6). It is native to southern Taiwan south to the Philippines, and given the warm conditions of June through August, and the relatively high local humidity plus the moisture added in your editor's summer shade house, it constantly produces both flowers and keikis.



Fig. 6. Pl#301205-12. *Phalaenopsis equestris* 'Terri' DSC_1762 Tues-31Jul-07.

If not severed from the mother plant, soon one has a lattice basket displaying flowers from both the mother plant and unplanted keikis still hanging from the inflorescences (Fig. 7). Cultured this way, a 6-inch lattice basket can become a mass of plantlets and flowers, but one *must* remember to mist frequently the entire mass of plants and plantlets and maintain the general humidity ambience. If done, the whole assemblage never quits producing plantlets and flowers simultaneously.



Fig. 7. Pl#301205-12. *Phalaenopsis equestris* 'Terri' DSC_4010 Thur-07Apt-11.

Ludisia discolor (Ker Gawl.) A.Rich. in J.B.G.Bory de Saint-Vincent, Dict. Class. Hist. Nat. 7: 437 (1825).

Synonyms:

- Haemaria discolor* (Ker Gawl.) Lindl., Gen. Sp. Orchid. Pl.: 490 (1840)
- Goodyera ordiana* B. S. Williams, Orch.-Grow. Man., ed. 4: 82 (1871).

Common Names

Jewel Orchid; The Differently Colored Ludisia; Phak biae chang (Thailand)

This species doesn't produce keikis, but it sprouts new growths profusely. The "jewel orchids" are widespread in damp forests from northeastern India north into southwestern China, southeast through Myanmar and Thailand; eastward into Indonesia and southward through Malaya, and are as popular for their attractive foliage as for their flowers (Fig. 8). They're easy of culture provided they're kept from freezing (again, use 40°F./+4°C. as a minimum), and don't try to grow it in the direct hot drying sun.

There should be no shortage of this species among local MIOS members! In early March of 2011 a potted plant held 24 inflorescences (Fig. 9). It was transferred to a lattice basket, and in mid-February of 2012 was recorded with 42 (Fig. 10), and



Fig. 9. Inflorescence. DSC_3933a Tues-01Mar-11.



Fig. 8 PI#040407-1. *Ludisia discolor*. DSC_3931a Tues-01Mar-11.

a year later, that hanging basket had 60+ inflorescences (Fig. 11). Now it was finally felt it was time to repot this plant! A number of 7-inch pots were done and the remaining divisions were

put into 6-inch pots. Some were given away, a few were brought to the November MIOS meeting, and 20 pots recently went home with Josie & Willie Maciel for distribution to MIOS members, and as this is being written, about 40 six-inch pots remain in the greenhouse in Victoria, Texas!

The lattice basket from which all these smaller divisions were taken, had been potted with a mix of bark and the local sandy loam soil.



Above: Fig. 10. DSC_4464, Plant with 42 inflorescences, Sat-18Feb-12. Below: Fig. 11. Plant with 60+ inflorescences DSC_5079a, Wed-16Feb-13.

Many are still potted in the same sandy loam soil and some are potted in a mix of the local sandy loam and some potting mulch. All are doing well, but it's planned to combine some of the plants from 6-inch pots into 8-inch lattice baskets with a soil and seedling bark mix, and put still others into wire thinly padded baskets using the same mix with some *Sphagnum* moss added.



It's anticipated the wire baskets may do best of all in that the plants can grow out of anywhere on the basket and become a large "ball mass" with inflorescences erupting in all directions. The same lattice basket (Figs. 10 & 11) shows how this species tends to cover the container's surface, so using both lattice and wire baskets might just be optimum ways to grow this species and display it either sitting on a pedestal or hanging.

In southern Sweden, the Campbell household grows this species, and their plant puts out buds as early as early November, but here in the Victoria, Texas area it has displayed flowers in February, March, and even May. The OrchidWiz data base records it in flower every month of the year except in June, with February, January, and December being its peak flowering months in that order.
