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## **Catasetums and Their Kin**

by Sue Bottom, sbottom15@hotmail.com

Do you get tired of taking care of your orchids in the winter? Wouldn't you like an orchid you don't have to water or fuss with during the cold winter months? The Catasetinae, consisting mainly of the Catasetums, Clowesias, Cycnoches, Mormodes and their hybrids, are a great group of orchids. Many are easy to grow and bloom once you understand their cultural needs. They explode with new growth during the summer growing season requiring copious amounts of water and fertilizer and most of them go into a deep sleep during the winter when they can be mostly ignored. You can put them in a dry corner, garage or closet and not worry about them at all during the winter as long as the temperature does not fall below 55. They are repotted in the winter during dormancy or in early spring as new growth emerges but not watered until that new growth is 4 or 5 inches tall. Simple!



*Ctsm. pileatum* is one of the most beautiful Catasetums with large flowers ranging in color from white through yellows and greens as well as the red imperiale variety.

When you first start growing the Catasetinae, you tend to think of Catasetums, Clowesias, Cycnoches and Mormodes all as one generic group, lumped together as catasetums. You learn the basics of how they like bright light, plenty of air movement and plenty of water and fertilizer during the growing season. Once you get the fever and you start growing the different varieties, you learn about some of the differences in growing and blooming the different genera.

Catasetums and Clowesias are the most easily grown of all the Catasetinae. They are vigorous growers that are less sensitive to cultural mistakes than the Cycnoches and Mormodes that are more prone to rot. At one time, Clowesias and Catasetums were lumped together in the Catasetum genus, but the Clowesias were moved into a separate genus due to differences in the the sexual orientation of the flowers. Catasetums flowers are generally unisexual so the plant tends to produce female flowers if grown in very bright light or the more attractive male flowers if grown in lesser light, although some flowers express a degree of hermaphroditism. Some growers speculate that cultural factors have more influence over the sex of the flowers than the light intensity. Given that only a very healthy and robust plant can carry these very large seed pods through the dormant period, only vigorous growers produce female flowers. The Clowesia flowers have both male and female flower parts, so in botanical parlance they are considered perfect flowers.



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Catasetums and Clowesias are easily interbred and the hybrid is referred to as a Clowesetum, also easily grown.

**Catasetums.** Catasetums are widely available. There are many many species of catasetums, with perhaps two dozen species commonly used in hybridizing. They come in a wide variety of colors, sizes and shapes. Some species have gorgeous elegant flowers and some are just plain weird. One of the most beautiful Catasetums is the species *Ctsm. pileatum* with its wide lip. Usually it is white but there are other color varieties including yellow, green and red. There are more than 200 registered Catasetum hybrids,

Catasetums bloom from the base of this year's new pseudobulbs while the plant is in active growth. Some have upright or arching inflorescences while others are more pendent so they are well suited to growing in baskets and hanging pots. The plants will bloom from spring through early fall, often blooming two, three or four times a year depending on their parentage.

Most Catasetums have a winter resting period when they lose their leaves and water is withheld unless the bulbs begin to look wrinkled and dessicated. For many Catasetums, you'll see the leaves start to yellow and drop in the fall as your plant enters its dormant period. Occasionally some Catasetums do not enter their dormant season along with most of the others. In this situation, some growers are inclined to continue to water these plants but at a reduced amount. They will usually send up a new growth in the spring and shed their old leaves in the late spring or summer. Other growers prefer to completely restrict water to force their plants into dormancy. There is probably no right or wrong way, you will find what works best for you. In that the plants in nature have a winter dry rest, you will probably find that most enjoy a dry winter period.

The length of dormancy also varies within the group. Some start their new growths in late winter and some in early spring. If you repot when your plant enters the dormant period, you will be all set when the new growth appears. If you like the plant to stay in the pot with all the roots intact until new growth appears, you will have to monitor your plants at least weekly for signs of new growths. You can easily damage the new growth and roots during repotting, so repot plants as early as possible in the new growth cycle. At least two and perhaps as many as four bulbs should be kept together in a clump during repotting.

Single bulbs will usually sprout new growths that grow well although they may not bloom for you until the next year.



*Ctsm. Elaine Chambers XXOO* is a cross between *Ctsm. Frilly Doris* and *Ctsm. pileatum*.



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*Cl. russelliana* 'JEM' is a beautiful large flowered Clowesia with the typical striped green coloration and long pendent inflorescence.

**Clowesias.** There are differences in the growth and blooming habits of Catasetums and Clowesias. Clowesias are strong growers that are very resistant to rot. They tend to have shorter pseudobulbs and grow with closely clumped pseudobulbs. There are two general types of Clowesias although they are not separated into different sections. We'll call them the large and small flowered varieties. The large flowered species include *Cl. russelliana*, *thylaciochila*, *dodsoniana* and *glaucoglossa*. These you grow similarly to Catasetums. They have long pendent, fragrant, greenish flowers that typically bloom in the summer while the plant is in active growth. You'll follow the same repotting practices as with Catasetums, repotting during the time between when they go dormant and when the new growth begins. You may keep more of the clumping pseudobulbs in the same pot only separating them when the pot would have to be too large.

The small flowered species include *Cl. amazonica*, *rosea*, and *warczewitzii*. These bloom in winter on leafless bulbs, typically with multiple inflorescences on short very pendent inflorescences. The greenish to pinkish flowers tend to be cupped and very fragrant, although some of the fragrances have been compared to Vicks VapoRub or Lemon Pledge. Be careful not to repot these plants until after they have flowered. You may think your plant is not going to flower, but you should still wait until either after it flowers or after you see the first signs of new growth. These Clowesias like to grow cramped with multiple bulbs in a single pot, you may have in excess of ten bulbs happily growing. Don't be in any rush to divide these clumps, it seems like they grow and bloom better with multiple bulbs in the pot.



*Cl. Jumbo Grace* 'Jumbo Orchids' (*Cl. Rebecca Northen* x *Cl. Grace Dunn*) is a small flowered clowesia, a cross between two famous grexes



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*Clo. Sandy Kasner* (*Cl. dodsoniana* x *Ctsm. Alexis Pardo*) is a cross with one of the large flowered Clowesias that blooms in the summer usually with several long pendent inflorescences.



*Clo. Jumbo Circle 'Claire'* AM/AOS (*Cl. Jumbo Grace* x *Ctsm. cirrhaeoides*) is a cross with a small flowered Clowesia that throws off multiple long lived inflorescences in the winter from tightly clumped pseudobulbs.

The intergeneric **Clowesetum** is formed when *Catasetum* and *Clowesia* are combined. The *Catasetums* tend to influence the color and size of the flowers while the *Clowesias* tend to increase the flower life and number of inflorescences. The *Clowesetums* are very easy to grow, just like their parents. They tend to produce medium sized clumping pseudobulbs that are rot resistant. When the large flowered *Clowesias* are used in the hybrid, the result is long pendulous inflorescences that appear in the summer. When the plants come of age, there may be three or four flower spikes at the same time. If the small flowered *Clowesias* are used in the hybrid, a very floriferous winter blooming plant can be expected. With a mature plant, six flower spikes that last for a month would not be unusual.

When repotting, don't be too eager to divide the plants. If you keep the clumping pseudobulbs together in a large diameter, shallow pot you will be rewarded with a very showy blooming. Particularly with the small flowering *Clowesia* hybrids, keeping the small clumping pseudobulbs together in the same pot means that you'll have multiple new pseudobulbs from which you'll get more than one inflorescence per new bulb.



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*Cyc. Swan Cascade (Cyc. cooperi x Cyc. Jean E. Monnier)* is a reliable grower and bloomer, perhaps due to hybrid vigor.

**Cycnoches.** The Swan Orchids are beautiful if temperamental because they are susceptible to rot. *Cyc. cooperi* is stunning, with its greenish to bronze pendent display of graceful flowers. I cannot resist buying them, though I have sent many to the great beyond because they die back so easily. Usually it is the back bulbs that die back and the lead bulb is left remaining, which will continue to grow and flower. Some of the yellow flowered species like *Cyc. chlorochilon* may be a little easier to grow. For my growing conditions, I find they grow a new pseudobulb each year and the old pseudobulb softens and rots so often there is only one bulb left standing by winter and rarely more than two pseudobulbs. The new *Cycnoches* hybrids are a little easier, perhaps due to hybrid vigor. If you're lucky you might have as many as three healthy bulbs on a plant.

For successful growers of healthy plants, the tall pseudobulbs flower from the leaf axil in the middle to upper portion of the new pseudobulb. They may flower twice, once in the fall after the growth matures and still carries its leaves and once in the winter on leafless bulbs. Given the

fact that they don't have many pseudobulbs, small baskets or shallow pots that can accommodate only one or two new pseudobulbs should be selected.

Breeding *Cycnoches* with the hardier *Catasetums* (to form the intergeneric *Catanoches*) or *Clowesia* (to form the intergeneric *Clownoches*) seems to increase plant vigor. These intergenerics are not widely available, although the single one I own, *Clw. Jumbo Valor* is an easy to grow winter bloomer.



*Clownoches Jumbo Valor (Cl. Rebecca Northen x Cyc. warscewiczii)* grows well



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I somehow managed to keep this *Mormodes warszewiczii* alive for several years.

When Mormodes are combined with Clowesia, the easy growing **Mormodias** are created. The vast majority of the Mormodias have been made with the small flowered Clowesias, so they have inherited many of their characteristics. Most Mormodias are small flowered, fragrant, winter bloomers that bloom from small clumping pseudobulbs. Sound familiar? They grow and bloom very similarly to their Clowesia parents. The Mormodes is used presumably to vary and intensify the coloration of the flowers. Repot and grow these Mormodias as you would a Clowesia, trying to keep the multiple pseudobulbs together in the pot for a more spectacular winter show.

The product of Catasetum and Mormodes breeding is the intergeneric **Catamodes**. These are not widely available, although you would guess that the Catasetum influence would improve the ease of cultivation. Alas, I have no Catamodes so have nothing to report.

**Mormodes.** The Goblin Orchids have vibrantly colored if somewhat bizarrely shaped flowers. They have a reputation for being more difficult to grow. I have only been able to keep one alive so can offer no practical advice, except perhaps for Caveat Emptor. Hats off to all you successful Mormodes growers out there! Try some of the new complex hybrids, they may be much easier to grow.



*Mo. Jumbo World (Cl. Grace Dunn x Morm. buccinator)* is a colorful beauty.



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*Cygd. Jumbo Puff (Cyc. warscewiczii x Morm. badia)* had a beautiful fat new pseudobulb this year

When *Cycnoches* are combined with *Mormodes*, the intergeneric **Cycnodes** are created. Even though you might think the double dose of rot prone plants would result in rot prone offspring, these intergenerics are easier to grow than either of their parents. They tend to have long pseudobulbs and bloom at least twice a year like their *Cycnoches* parents. *Cycnodes* primary hybrids get the best qualities of both parents. The *Mormodes* is dominant for color and recessive for form and the *Cycnoches* is dominant for form and recessive for color. Given their parentage, smallish shallow pots that can accommodate one or two new growths should be used when repotting.

**Complex Intergenerics.** Complex intergenerics are formed when 3 or more catasetinae genera are combined. The most well known of these are the **Fredclarkearas** (*Catasetum*, *Clowesia* & *Mormodes*), particularly the black orchid *Fdk. After Dark*. There are other complex intergenerics



*Cyclodes Jumbo Freedom 'SVO' AM/AOSt (Mo. Emiina Watouy x Cyc. warscewiczii)* grows well

including **Cloughara**, **Cyclodes**, **Monnierara** and **Georgecarrara** though they are not too widely available except for the popular *Monn. Millennial Magic*. I find that the complex intergenerics tend to grow well but are somewhat reluctant bloomers. Apparently there is more learning that I have to do with these complex intergenerics.

**Lessons Learned.** No matter how many years you've been growing this or that type of orchid, you are always learning new tricks, trying new snake oils and tweaking your culture. Here are some of the catasetum lessons learned from this past year.

*How Often to Repot?* I used to repot catasetums every year until last year, when I couldn't remember why I was repotting them every year. The plants were all potted in AAA long fibered sphagnum moss which can easily last 2 years in the pot so I dared to be different and didn't repot last year. It seems like the catasetums bloomed earlier and more prolifically when left in the pot the second year. During repotting, I usually interlay timed release fertilizer as I'm adding the sphagnum moss to the pot because they are such heavy feeders and by skipping the repotting step the plants only got their water soluble fertilizer (about 50 to 70 ppm nitrogen, that works well for the cattleyas) with each



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watering. Probably the pots should have been top dressed with timed release fertilizer at the beginning of the second year to supplement the water soluble fertilizer.

*Growing Outdoors* I used to hang the catasetums over the cattleyas in the greenhouse where they were watered every second or third day. Fred Clarke of Sunset Valley Orchids had been encouraging me to try different things including growing outside with little protection from either the sun and or extended rainy periods. I moved some seedling catasetums potted in sphagnum moss in 2 inch pots to one of the open vanda shade houses where they got bright light and daily watering/fertilizing. By midsummer, I had treated the greenhouse catasetums four times for spider mites while the ones growing with the vandas had no mite damage. I tried syringing the bottom of the leaves in the greenhouse using a Fogg-It nozzle to simulate the outdoors conditions and this not only didn't dissuade the mites but it caused a nasty crown rot on about a dozen plants. Perhaps the day night temperature change is more extreme outdoors allowing some condensation on the leaves that dissuades the mites. And perhaps the air movement is more buoyant in the great outdoors drying the leaves and preventing rot. At any rate, all the catasetums are moving out in the spring to a new open hanging structure that will have a 30% shade cloth covering and misting system. Because the plants will also receive rainwater, this year everything is being potted in smaller clay pots with large chunks of Styrofoam at the bottom and a sphagnum moss/sponge rock mix that occupies perhaps the top half of the pot. Even if these plants are wet for a week during long rainy periods, there is not so much sphagnum moss in the small pot that the roots will be soddenly wet plus there are plenty of air pockets in the pot for the roots to grow into.

If you are just starting out with Catasetums, think of trying the hybrid Catasetums, Clowesias and Clowesetums first. The Catasetums and Clowesias are the easiest to grow and you'll benefit from hybrid vigor. Once you've mastered the basics of Catasetum culture, try the species, Mormodias and Cynodes or even some of the Cynoches hybrids or complex intergenerics. You'll find which ones grow best for you and reward you with the most blooms. But be careful, or you may find you are on a first name basis with Fred Clarke!

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