

Catasetums

Part 1 -The Dinner Plates!

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Catasetums have fascinated and confused both botanists and orchid growers for centuries.

Different plants, carrying female or male flowers and even the same inflorescence carrying both male and female flowers, have puzzled early botanists who struggled to come to terms with their dimorphic flowers. The forceful way in which they project their pollen when triggered is unique in the orchid world as many unsuspecting victims have come to realize when they touch the flowers after being coaxed to smell them by the cunning grower.

antennae extend downwards from the column into the lip cavity and are found only in the male flowers. When touched by a pollinator, usually a euglossine bee, it triggers the explosive release of the pollinarium at a speed measured at more than 3m/s or 18km/h. The whole process is expertly shown in the BBC production "*The Private Life of Plants*", episode 3 - Flowering. This is a series no plant lover should be without.

The genus *Catasetum* was described in 1822 by Kunth and consists of approximately 100 species, occurring from Mexico to Argentina in the New World. *Catasetum macrocarpum* is considered to be the type species for the genus. Anyone interested in the history of the genus will find an excellent chapter on this in "*The World of Catasetums*" by Arthur W. Holst. This is the only book currently available for those interested in the genus.

The trigger-happy nature of the plants ensures that they have very little commercial value except for the hobbyist. Secondly the sexual dimorphism of the flowers makes breeding a bit more difficult than in other genera. Goodale Moir, one of the leading hybridists of the 20th century, registered the first *Catasetum* hybrid in 1959, viz. *Clowesetum* Grace Dunn. This was followed by 6 hybrids registered by Jones and Scully in the seventies and a few made by RF Orchids. In the nineteen eighties and nineteen nineties, JEM Orchids became the only specialist Catasetinae nursery in the United States. They introduced several new species and hybrids to the enthusiast, including the "black" *Catamodes* Black Magic. Jumbo Orchids of Taiwan also



***Catasetum* Orchidglade 'Davies Ranches' showing male, female and a perfect flower.**

Photographer: F. Clarke

It is from these downward pointing triggers or antennae that the name for the genus *Catasetum* is derived (from the Greek word *cata* indicating "downwards" direction and the Latin *saeta* or *seta* meaning "a bristle"). These

produced many intergeneric hybrids in the late nineteen nineties and the early years this century. They even added *Galeandra devoniana* and *Ansellia gigantea* to the mix. Antonio Schmidt of Bela Vista Orchids introduced several new Brazilian species to horticulture and he is still offering some interesting hybrids for sale. It is, however, the release of the amazing *Fredclarkeara* After Dark, arguably the most successful hybrid grex made in recent years, that has ignited the interest in *Catasetinae* in the last few years. Fred Clarke of Sunset Valley Orchids registered the cross and a few of the clones have being described as the 'blackest' orchids yet seen. Looking at his current flask offering there are many more surprises yet to come.

If we were to go back to the early years of hybridizing in the nineteen sixties, when the big *Cattleya* hybrids were in their prime, one would naturally expect the hybridizers to combine the biggest flowered *catasetums* with each other. *Catasetum pileatum* and *Catasetum expansum* produce the biggest flowers of the genus and so were used extensively to produce the dinner-plate hybrids, so named because of the large lips produced by these plants.

Catasetum pileatum, native to the northern parts of South America was introduced into cultivation by Messrs. Linden and described by H.G. Reichenbach in 1882. The huge white concave lip is the most prominent feature of the flower, the largest of all the *catasetums*. 6-12 flowers can be produced on an arching inflorescence and the floriferous nature of the species adds to the desirability of using it in hybridizing.

The "red *pileatum*", *Catasetum pileatum* var. *imperiale* or *Catasetum imperiale* (depending on whom you want to cite) was also introduced by Jean Linden in 1890. Endemic to Venezuela, (but is now considered to be extinct), is essentially a red flowered form of *Catasetum pileatum*. It can produce up to 15 flowers on a spike. The RHS, however, does not recognize it as a separate species. One of the best known cultivars is 'Pierre Couret'

Catasetum expansum, from Ecuador, was described by Reichenbach in 1878 and the species name refers to the large,



Catasetum pileatum 'Dinner Plate'.

Photographer: ????????



Catasetum pileatum var. *imperiale*.

Photographer: ????????

flat, "spread out" lip. Two colour forms exist - the mainly green or lowland form and the more colourful highland form with more wine-coloured spotting. The flowers are only slightly smaller when compared to *Catasetum pileatum* and slightly bunched on the inflorescence. The lip has a prominent dark red callus in the centre that is passed on to its progeny.

Jones & Scully registered *Catasetum*



***Catasetum expansum* 'SVO'.**

Photographer: F. Clarke

Orchidglade in 1974 combining *Catasetum pileatum* with *Catasetum expansum*. Due to the wide range of colour forms *Catasetum* Orchidglade has become quite popular. One of the best known clones is 'Jack of Diamonds' AM/AOS. Another clone worth mentioning is the extremely dark 'Jamie's Tortured Midnight'. As with most types of line breeding it is always beneficial to back cross a hybrid with one of the parents to enhance a particular trait. Crossing *Catasetum* Orchidglade back onto *Catasetum pileatum* produces even bigger flowers, with a reduced callus from the *Catasetum expansum* grandparent. *Catasetum* Bound for Glory was registered in 1978 by Jones and Scully.

Crossing *Catasetum* Orchidglade back



***Catasetum* Orchidglade 'Jack of Diamonds' AM/AOS.**

Photographer: F. Clarke



***Catasetum* Orchidglade 'Jamie's Tortured Midnight'.**

Photographer: F. Clarke

onto *Catasetum expansum* produced *Catasetum* Susan Fuchs. The flowers are very similar to *Catasetum* Orchidglade but with more intense coloration. Crossing *Catasetum* Susan Fuchs with *Catasetum pileatum* produces *Catasetum* Penang. RF Orchids back crossed *Catasetum* Susan Fuchs in 1986 with *Catasetum expansum* to produce *Catasetum* Fuchs Delight. Along a similar line, i.e. crossing progeny with a parent, in this case *Catasetum* Susan Fuchs with *Catasetum* Orchidglade we get *Catasetum* Kidney Beans registered by Fred Clarke in 2004.

Combining *Catasetum* Mary Spencer (*Catasetum trulla* x *Catasetum pileatum*) with *Catasetum pileatum* var. *imperiale* produced the intensely red coloured *Catasetum* João Stivalli in 1995. In 2007 Ryan Kowalczyk registered *Catasetum* John C. Burchett a hybrid made by Bela Vista Orchids of Brazil. It unites the red coloration of *Catasetum* João Stivalli with the intense coloration of *Catasetum*



***Catasetum* Susan Fuchs 'Orchidglade'
AM/AOS.**

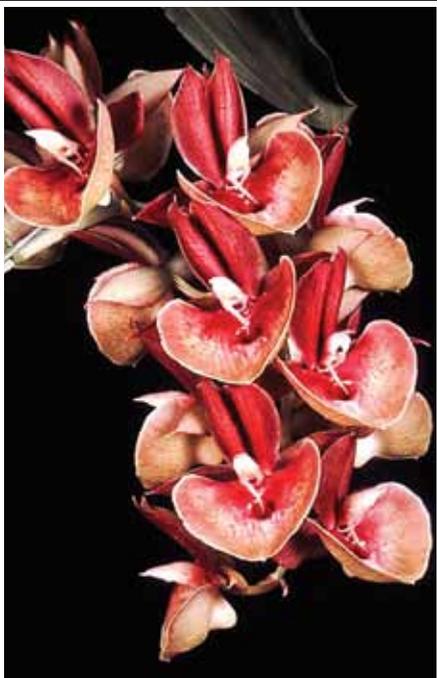
Photographer: F. Clarke

Susan Fuchs to produce *Catasetum* John C. Burchett. The cultivar 'Ursa Major' received an FCC of 94% from the American Orchid Society. This is the highest scored plant in the genus. The heavily saturated colour and flat form add to the beauty of this striking flower.



***Catasetum* John C. Burchett 'Ursa
Major' FCC/AOS.**

Photographer: F. Clarke



***Catasetum* Kidney Beans 'SVO'
HCC/AOS.**

Photographer: F. Clarke

Another worthwhile hybrid is *Catasetum* Donna Wise. A cross between *Catasetum* Orchidglade and the green and "black" *Catasetum tenebrosum* registered by Mark Dimmitt in 1995, it produced intermediate sized flowers with excellent shape and in a myriad of colours. The inherent qualities of this grex are apparent in its progeny, since it is a parent of *Fredclarkeara* After Dark.



***Catasetum* Donna Wise 'Kathleen'
AM/AOS.**

Photographer: F. Clarke

Fred Clarke has crossed *Catasetum* Susan Fuchs and *Catasetum* Donna Wise to extend the line breeding. Antonio Schmidt did the same with a cross of *Catasetum* John C. Burchett with *Catasetum* Orchidglade. These two crosses should be the pinnacle of this type of breeding and we cannot wait to see the results.

To summarize: the flowers might not be long lasting, but they make up for it with sheer size and the intensity and variety of colours.

In the next part we will look at some of the more frilly counterparts!

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