

# SPOTS and STRIPES

Catasetinae, Cattleyas, Dendrobiums,  
Masdevallias, Phalaenopsis, Vanda



American Orchid Society  
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# Spots

## Speaking Orchid-Wise

ALEC PRIDGEON (originally published in the *American Orchid Society Bulletin* 56(3):226–227)

ON NOVEMBER 5, 1644, Samuel Pepys entered in his now-famous *Diary* that he had been to see *Macbeth*, a “pretty good play.” There was no mention of one of literature’s most memorable passages: Lady Macbeth, consumed by guilt for her role in Duncan’s death and the inexorable sequence of crimes on its heels, cries, “Out, damned spot! Out, I say!” No amount of hand washing could remove the stain, and K2r was still years in the future. Spots have always inspired mankind, taunting with the secrets of the universe. The ancients devised the constellations, an early form of connect-the-dots, giving familiar frames of reference and meaning to the spotted regularity that may be observed in the heavens. The Italian monk, Guido d’Arezzo (c. 995–1050), is credited with the invention of the musical staff, lines upon and between which notes are written to indicate their relative pitch, and, with a clef, their absolute pitch. Those funny little spots, symbols of time as well as pitch, have defined everything from the toccata to the opera, from Mozart’s glorious piano concertos to the wailings of Waylon and Willie.

Spots on the printed page relay an undercurrent of information to the reader. The period separates one complete thought from another, but that spot with a tail, the comma, only gives us pause. The colon asks us to anticipate and to pay attention to what follows, while the semicolon, halfway between a period and a comma, cannot seem to make up its mind. Punctuation marks such as these are among the most abused and misused spots on the face of the earth.

In nature, however, spots are never wasted. Juveniles of many birds and mammals are speckled — camouflage their fail-safe defense against a world of predators. Large spots that resemble eyes are frequently found on the wings of butterflies or bodies of caterpillars to frighten away small birds. We are able to identify at a glance the spotted sandpiper, spotted oriole, and even the spotted western race of the rufous-sided towhee



by, well, you get the picture. Flowers of hundreds of orchid species are distinctive by virtue of the colors and patterns of their spotting. *Paphiopedilum bellatulum*, for example, is treasured for this reason. Many bifoliate cattleyas, notably *Cattleya aelandiae*, have speckled sepals and petals. *Bulbophyllum leopardinum* from northern India is one orchid unlikely to change its spots. The heritage of spotted phalaenopsis hybrids is traceable to two species in particular — *Phalaenopsis stuartiana* and *Phalaenopsis schilleriana* — with *Phalaenopsis lueddemanniana* a close third. From *Acampe* to *Zygosepalum*, spots are found throughout the orchid family, punctuating flowers of bright colors, unique structure, and sometimes otherworldly fragrances.

It would be unreasonable for us to assume that the spots in orchid flowers are any less functional than those elsewhere in nature. Indeed, pollination biologists have shown conclusively that spots serve as visual attractants in many fly-pollinated species, particularly in *Paphiopedilum*, *Masdevallia* and *Bulbophyllum*. They may also perhaps convey familiar ultraviolet patterns to bee pollinators. Very little is now known about the genetics and physiology of spotting in orchid flowers, and successes in producing hybrid clones with superior patterns are all too often

The Monarch of the Realm of Spots is *Paphiopedilum bellatulum*, which grows naturally on moss-covered limestone outcrops in Myanmar (Burma) and Thailand. Above left, *Paphiopedilum bellatulum* ‘Red Fusion’ HCC/AOS, exhibited by Paphanatics, unlimited in 1986, and photographed by Richard Clark, shows intriguing burgundy blotches. Above right, *Paphiopedilum bellatulum* ‘Barbara’ HCC/AOS, exhibited by Floradise Orchids in 1990, and photographed by John J. Nelson, shows the more typical spotting that has made this species one of the most popular.

hit-or-miss. It is as if nature is doing its utmost to thwart all of our efforts to modify the basic patterns and to maintain the integrity of signals to pollinators that have evolved over thousands of years. The signals, the messages we have not yet deciphered, are just as indelible as the stains on the hands of Lady Macbeth.

— At the time of original publication, Alec M. Pridgeon, PhD was the editor of the AOS Bulletin. He joined the AOS staff in August of 1984, succeeding Richard Peterson as editor and remained on the AOS staff until 1991. A former Sainsbury Orchid Fellow, Royal Botanical Gardens, Kew, Dr. Pridgeon has been involved in orchids for more than 40 years.



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THE EDITORIAL BOARD recognizes the generosity of growers and lovers of orchids for their contributions to this Supplemental Issue of *Orchids*. When we all work and join together, wonderful things such as this celebration of spots and stripes in the orchid world are possible. A special thanks to the authors and photographers who contributed their time and enthusiasm to this issue. — Jean Allen-Ikeson

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## COVER

*Cattleya tigrina* and *Cattleya guttata* are notoriously difficult to tell apart; differing only in details of flowering season, dry or green sheath and whether or not the lip side lobes overlap and enclose the column. In fact, many of the plants in today's collections exhibit characteristics of both (as does our cover subject photographed by Greg Allikas), arguing hybrid origin — not surprising considering the nomenclatural confusion of the past. Regardless, these plants make stunning specimens when mature.

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# Spotted Catasetinae

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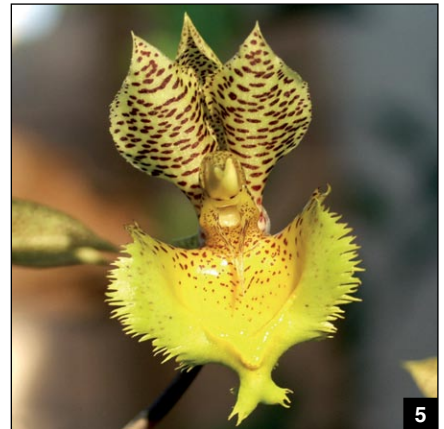
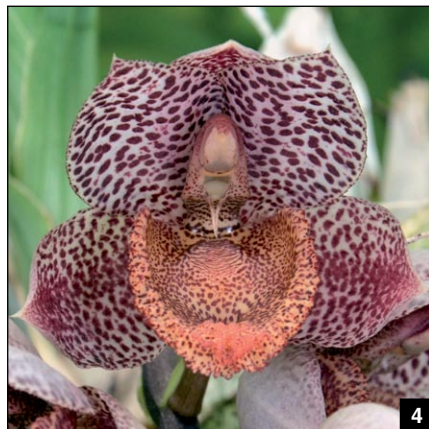


OF ALL THE different color forms available in the genus *Catasetum*, the spotted flowers may be the most colorful. Breeding for spots relies on selecting species that are nicely spotted and can pass this trait to their offspring. The most important *catasetum* species that have been used in breeding spotted flowers are *Catasetum expansum*, *Catasetum fimbriatum*, *Catasetum denticulatum* and *Catasetum tigrinum*. *Catasetum expansum* has a large shield-shaped lip with many cultivars exhibiting bold spotting. *Catasetum fimbriatum*, named for its fringed (fimbriated) lip margins, has bright-yellow flowers with contrasting burgundy spots. *Catasetum denticulatum* is a more recent contributor to spotted breeding. In addition to having densely spotted flowers, this species has a small stature where mature plants rarely exceed 6 inches (15.2 cm) tall. Flowers are spotted burgundy and sport a contrasting yellow lip spotted with fine burgundy spots. As a bonus, this species produces dense clusters of flowers several times a year. *Catasetum tigrinum* has also recently demonstrated its ability to produce offspring with spotted flowers. This is a small-growing plant, which carries 15–25 light-yellow to cream flowers on long, pendulous inflorescences. The petals are broad, full and covered with light-purple spots.

Some of the early *catasetum* hybrids were spotted and great examples are *Catasetum* Orchidglade 'Davie Ranches' AM/AOS and *Catasetum* Susan Fuchs 'Burgundy Chips' FCC/AOS. The showy, broad full lip of both is imparted by *Catasetum pileatum*; *Ctsm. expansum* in their background with their large showy broad lips added the shape and *Ctsm. expansum* contributed the spots! These two early hybrids have been influential in breeding subsequent generations of spotted offspring.

More recently, breeding has relied on two newly introduced species with spotted flowers: *Ctsm. denticulatum* and *Ctsm. tigrinum*. A great example of these contributions can be seen in the primary hybrid *Catasetum* Dentigrianum, which has a spectacular flower: a white background with clean burgundy spots framing a soft-yellow denticulate (finely toothed) lip.

A recent hybrid named *Catasetum* Extravaganza (Karen Armstrong × Louise Clarke), incorporates a considerable genetic influence of *Ctsm. Orchidglade* and *Ctsm. Susan Fuchs* with a touch of *Ctsm. denticulatum*. The spotting on these



- [1] *Catamodes* Dragons Glade 'Sunset Valley Orchids' AM/AOS (*Ctmds. Dragons Tail* × *Ctsm. Orchidglade*) Every once in a while a cross is made that exceeds all expectations. This grex went far beyond our original predictions. Flowers come in a range of color combinations, with many being spotted like the 'SVO' cultivar shown here. The full-shaped blooms have large flat lips and are well-arranged on inflorescences that are produced several times a year. Photograph by Arthur Pinkers.
- [2] *Catasetum expansum* 'SVO'. This is a fine example of the spotted form of this attractive *Catasetum* species. The broad, flat lip is the dominant feature in this species. *Catasetums* are known for ejecting pollen, and the triggers that control ejection are clearly visible against the dark-colored callus.

- [3] *Catasetum tigrinum* 'Very Wide Petals' This small-growing species from Brazil has recently been introduced to cultivation. Its flowers have wide petals that overlap the dorsal and lateral sepals, producing a well-balanced appearance. This trait, small plant stature, and spotted flowers are readily passed to its offspring.
- [4] *Catasetum denticulatum* 'SVO #1' This newly-introduced small-growing *Catasetum* species from Brazil has played an important role in reducing the plant size of *catasetum* hybrids. The dense spotting on the flower is a dominant trait that is passed on to its progeny.
- [5] *Catasetum fimbriatum* 'Golden Horizon' This colorful and easy-to-grow species has been used in over 100 registered *catasetum* hybrids to date. In breeding, the showy fimbriate lip is dominant, as are the spotting and color, when paired with an appropriate parent.

flowers can be dramatic, as seen in the two cultivars illustrated here. In addition to being densely spotted, the flowers are 3.5 inches (8.9 cm) across and produce 15–18 flowers per inflorescence several times a year on a small plant!

The intergeneric combination of *Clowesia* and *Catasetum* makes a hybrid

genus named *Clowesetum*. In this style of breeding, the influence of the *Clowesia* increases the flower longevity up to four to five weeks. Although *Clowesia* are not spotted, pairing them with an appropriate parent can result in spotted progeny. The grex *Clowesetum* Jumbo Lace (*Clowesia* Rebecca Northen × *Ctsm.*





[6] *Catasetum* Orchidglade 'Davie Ranches' AM/AOS (*pileatum* × *expansum*) This primary hybrid was registered by Jones & Scully in 1974. It has become an influential parent and has been involved in over 750 registered hybrids. Its legacy includes many spectacular offspring, and this important grex continues to play an important role in today's modern hybrids.

[7] *Catasetum* Susan Fuchs 'Burgundy Chips' FCC/AOS (Orchidglade × *expansum*) Registered in 1982 by R.F. Orchids, this cultivar was awarded an FCC in 1994 and is still spectacular by today's standards. Its contributions in breeding are prodigious, appearing in the ancestry of many outstanding hybrids.

[8] *Catasetum* Extravaganza 'SVO Spotted Beauty' (Louise Clarke × Karen Armstrong) The bold burgundy spots on the lip and petals provide a dramatic contrast against the white background.

[9] *Catasetum* Dentigrianum 'Just Beautiful' (*denticulatum* × *tigrinum*) There are few things more satisfying than the beauty created when the traits of two parents come together perfectly. This grex displays the potential of both parents. What you do not see in the picture are the small plant stature and the large number of beautifully-arranged flowers. These develop from two simultaneous inflorescences twice each season, once in early summer and again in the fall.

[10] *Clowesetum* Jumbo Lace 'SVO' (*Clowesia* Rebecca Northen × *Ctism.* *fimbriatum*) The fimbriate lip, yellow coloration and spots of the *Ctism. fimbriatum* combine well with the broad floral segments of the *Clowesia*. This grex has long-lived flowers that last four weeks or more, making it valuable for further breeding.

[11] *Catasetum* Extravaganza 'SVO' (Louise Clarke × Karen Armstrong) The eye-catching color contrast of the yellow lip, white background and burgundy spots is accentuated by the beautifully fimbriated lip margin.

[12] *Clowesetum* Lou Lodyga 'SVO' (*Cl.* Jumbo Lace × *Ctism.* Susan Fuchs) The yellow color of both parents has combined to form a bright yellow base that makes the well-defined burgundy spotting stand out. The fimbriate lip margin adds just a touch of class.



*fimbriatum*) is a great example of this phenomenon. Another recent hybrid that shows excellent color and spotting is the hybrid of *Clowesetum* Lou Ladyga (Jumbo Lace × *Ctsm.* Susan Fuchs). This grex has beautifully formed flowers in shades of yellow and spotted in burgundy. An additional quality is flower longevity, which continues in this second-generation hybrid.

Another clowesetum hybrid that has exhibited outstanding spotting is *Clowesetum* Alexandra Savva. Its parents are (*Cl.* Rebecca Northen × *Ctsm.* *denticulatum*). The flowers are white, densely peppered with dark-pink spots. The pendulous inflorescences can carry as many as 35 flowers each, and generally two or three inflorescences are produced simultaneously. It is not uncommon to have 100 flowers or more on a mature plant!

The dramatic swan-shaped flowers of *Cycnoches* can also be used to breed for spots. One species in particular, *Cycnoches barthiorum*, has played an important role in developing spotted flowers. The grex, *Cycnoches* Jean E. Monnier, is a cross of *Cyc. barthiorum* and *Cycnoches cooperi*. It exhibits the best qualities of both parents. The spotted flowers of *Cyc. barthiorum* are apparent in the male flowers, which exhibit bold spotting. Interestingly, the female flowers are spotless with a smooth, rich-burgundy color.

Breeding of *Cycnoches* for yellow flowers and bold burgundy spots has involved several generations. The recently registered hybrid of *Cycnoches* Providence (Richard Brandon × Martha Clarke) involves three generations and four species: *Cycnoches warszewiczii*, *Cyc. barthiorum*, *Cyc. cooperi* and *Cycnoches herrenhusanum*. The offspring have been the most colorful and dramatic, spotted *Cycnoches* to date.

*Mormodes* species are known for their wild and exotic flower colors, and some of the species have spots as well. Breeding these spotted types together has yielded several eye-catching hybrids. A successful hybrid created and registered by Exotic Orchids of Maui is *Mormodes* Exotic Treat (*sinuata* × *tuxtensis*), which produces yellow flowers densely spotted with coalescing burgundy spots. When *Mormodes* Exotic Treat was crossed with *Mormodes rolfeana*, it created a spectacular spotted hybrid, *Mormodes* Nitty-Gritty. The cultivar 'SVO Ripper' JC/AOS is particularly nice. But this breeding did not stop there. When *Morm.* Nitty-Gritty was backcrossed to *Morm.* Exotic



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Treat, an even more spectacular hybrid was created, *Mormodes* Gareth Wills. The flower color and bold contrasting spots inspired the cultivar name 'Tiger Spots'. Although the flower is spotted rather than striped, it still reminds me of a tiger! *Mormodes* Nitty-Gritty also demonstrated its ability to breed spots

[13] *Clowesetum* Alexandra Savva 'Adorable Freckles' (*Cl.* Rebecca Northen × *Ctsm.* *denticulatum*) Both parents of this grex are floriferous small-growing plants. The resulting flower production has been impressive, and all those pink spots make for memorable flowerings.



when it was crossed to *Cl.* Grace Dunn, making *Mormodia* Gritty Grace. We were really impressed when Ryan Kowalczyk of Florida bloomed 'Big Bear Pox' AM/AOS.

Another effective direction in breeding spots involves *Cycnodes*, the hybrid genus that results by combining a *Cynoches* and a *Mormodes*. *Cycnodes* hybrids exhibit dominant shape from the *cynoches* flower and dominant color from the *mormodes* parent. The hybrid *Cycnodes* John Naugle (*Mormodes andicola* × *Cyc. warszewiczii*) has been particularly successful. The coloration of the *mormodes* parents is evident in the well-formed flowers. The spotting creates a dramatic effect against the beautiful base colors.

Another successful *cycnodes* hybrid is *Cycnodes* Spotted Hornet (*Cyc. warszewiczii* × *Mormodes Exotic Treat*). These produce an outstanding display of bright golden-yellow flowers that are densely spotted with burgundy in the hybrid. The cultivar 'Sunset Valley Orchids' received an FCC/AOS in 2011 with 27 flowers on two inflorescences! We were so impressed with the color of *Cycd.* Spotted Hornet that we decided to backcross it with *Cyc. warszewiczii*. We expected *Cyc. warszewiczii* to flatten the petals and lip while maintaining the magnificent coloration of the *Cycd.* Spotted Hornet. This new hybrid was named *Cycnodes* Troublemaker and you can see from a photograph of *Cycd.* Troublemaker 'SVO Big Trouble' AM/AOS that our breeding strategy worked.

Another new area in breeding spotted *Catasetinae* is the use of *Catamodes*, the combination of *Mormodes* and *Catasetum*. The grex *Catamodes* Dragons Glade incorporates two well-known, spotted *catasetum* parents, *Ctsm.* Orchidglade and *Ctsm. denticulatum*, and the species named *Mormodes ignea*. The ancestors in this newly registered grex passed along their positive traits, including twice-a-year blooming and inflorescences with many long-lived, well-arranged, spotted flowers in bright colors. The cultivar 'Sunset Valley Orchids' AM/AOS shows all these impressive qualities.

Fredclareara breeding has been associated with black flower color due to the successful grex *Fredclareara* After Dark. Along with its amazing dark flower color, *fredclarearas* have impressive flower longevity of up to six weeks, and each inflorescence carries many well-arranged flowers. There are many examples of the dark-colored flowers of *fredclareara* hybrids, about half the *Fdk.*



After Dark grex bloomed with spotted flowers. The most familiar is the cultivar 'Sunset Valley Orchids' FCC/AOS.

What about breeding for more spotted *fredclarearas*? When the spotted *Fdk.* After Dark 'Sunset Valley Orchids' was crossed to *Ctsm.* Susan Fuchs, it created a yet-to-be registered hybrid. These have bloomed with nicely shaped flowers, and many were boldly spotted, like the cultivar 'Big Spots'. Second-generation *fredclareara* breeding has been exploring the potential for spotted flowers. The new grex, *Fredclareara* Doubtless (*Fdk.* No Doubt × *Ctsm.* Orchidglade) has exhibited an outstanding new array of colors and spots. These also show a measurable improvement in flower size, shape,



[14] *Cynoches barthiorum* 'Fishing Creek'

This spectacular example of the species was grown and photographed by Steve Male of Fishing Creek Orchids in Pennsylvania. Steve has refined the growing of *Cynoches* species into a well-practiced science — I do not recall seeing a better-flowered *cynoches*. The spotted flowers of this species are responsible for most of the spots seen in *cynoches* hybrids.

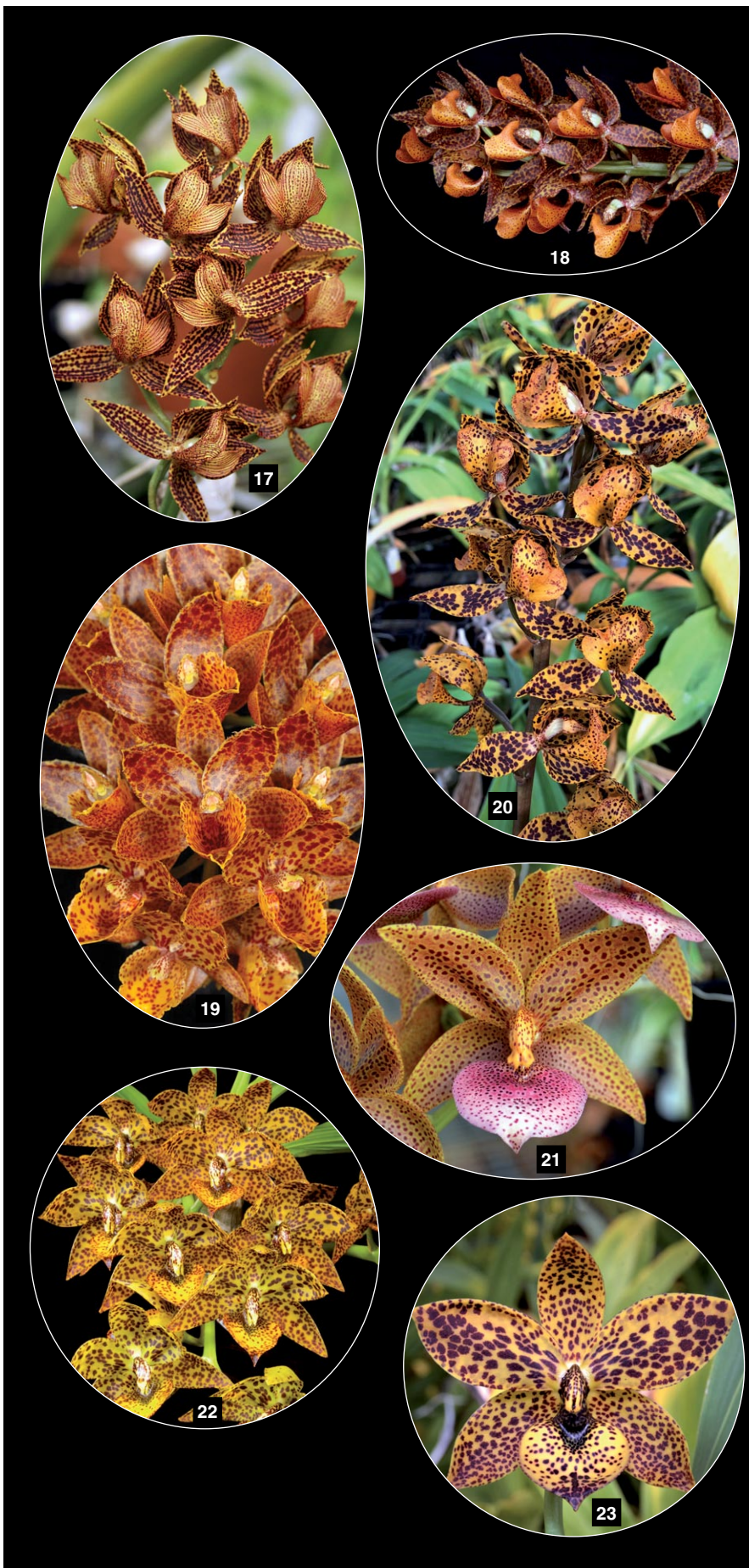
[15] *Cynoches* Jean E. Monnier 'Big and Bold' (*cooperi* × *barthiorum*) This grex is the most awarded of the *Cynoches* hybrids. The bold spotting coupled with pendulous inflorescences of 25 to 30 flowers have resulted in this hybrid receiving an impressive 29 AOS awards.

[16] *Cynoches* Providence 'SVO' (Richard Brandon × Martha Clarke) Breeding for bright yellow flowers with burgundy spots has taken perseverance over several generations. You can imagine my happiness when the first plants of this grex began to flower! The 'SVO' cultivar shown here was particularly nice, and the clear, rich color, bold spots and contrasting lip tipped in burgundy make a striking combination.

substance, arrangement and longevity. These are so amazing that I really need to remake this cross.

Spotted *Catasetinae* are truly magnificent. The combination of different species and hybrids can result in colors and spot patterns that are nearly infinite. What does the future hold for breeding



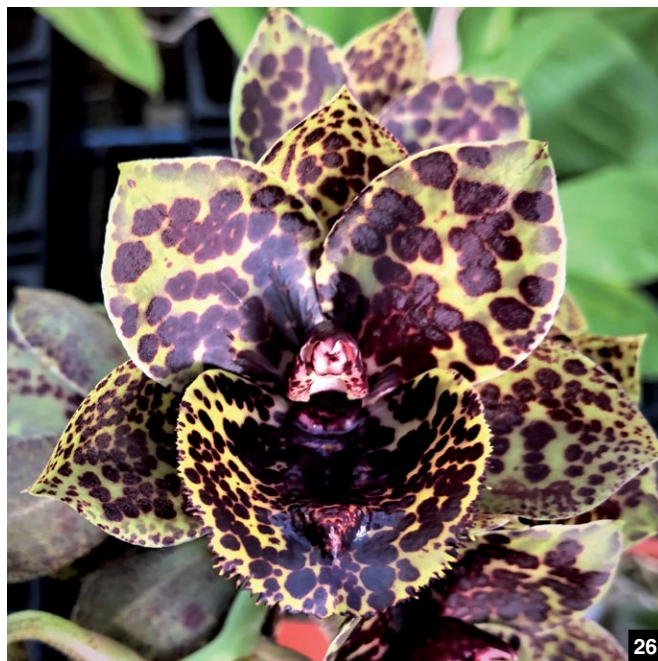


- [17] *Mormodes* Exotic Treat 'SVO' AM/AOS (*sinuata* × *tuxtensis*) This has been a very good cross with an interesting characteristic: most of the spots are coalesced into lines. These are vigorous growers and, as a result, have been used successfully in developing some exceptional new spotted hybrids.
- [18] *Mormodes* Nitty-Gritty 'SVO Ripper' JC/AOS (Exotic Treat × *rolfeana*) The asymmetric flower form of *Mormodes* makes them challenging to judge by typical AOS standards. However, the color of 'SVO Ripper' is off the charts! The rich orange-burnt orange combination and variety of bold and fine burgundy spots make this spectacular. Photograph by Arnold Gum
- [19] *Mormodia* Gritty Grace 'Big Bear Pox' AM/AOS (*Cl. Grace Dunn* × *Morm. Nitty-Gritty*) We sold all of these without putting any aside for evaluation. Fortunately, Ryan Kowalczyk bloomed and received the AOS award on this fine example of a spotted *Mormodia* hybrid. Photograph by Ernest Walters.
- [20] *Mormodes* Gareth Wills 'Tiger Spots' (Exotic Treat × Nitty-Gritty) This cross is an advanced *Mormodes* hybrid that combines three *Mormodes* species: *tuxtensis*, *sinuata*, and *rolfeana*, over three generations. The combination has produced bold contrasting spots. Not really sure why it reminds me of a tiger...
- [21] *Cycnodes* John Naugle 'SVO Select' (*Morm. andicola* × *Cyc. warszewiczii*) The color of the *Mormodes* has completely dominated the green flower color of *Cycnoches warszewiczii*. Thank goodness! This remarkably beautiful color combination impresses me every year.
- [22] *Cycnodes* Spotted Hornet 'Sunset Valley Orchids' FCC/AOS (*Cyc. warszewiczii* × *Morm. Exotic Treat*) In this cross we are once again reminded of the dominant color imparted by the *Mormodes* parent. The AOS judges were as impressed as I was when they saw this. Photograph by Arthur Pinkers.
- [23] *Cycnodes* Troublemaker 'SVO Big Trouble' AM/AOS (*Cycd. Spotted Hornet* × *Cyc. warszewiczii*) This is one of our first hybrids crossing a *Cycnodes* back to a *Cycnoches*. We had hoped the reintroduction of *Cycnoches* would flatten the flower and the lip and not reduce the bright flower color of *Cycd. Spotted Hornet*. We were pleasantly surprised to see the flower form improvement and even happier that the vibrant color remained.









spotted *Catasetinae*? The intensity of color and the variations of spotting are nearly infinite. One area yet unexplored is purple-spotted flowers. We have high hopes that the newly introduced *Catasetum ivanae* may just be the key to creating *Catasetinae* with purple-spotted flowers. Stay tuned to see what happens next!

**Acknowledgments**

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— Fred Clarke owns and operates *Sunset Valley Orchids*, which is dedicated to developing hybrids and producing select species for the orchid enthusiast. He has been growing orchids for over 40 years and hybridizing for 38 of those years. He is committed to the education of orchid hobbyists around the world in the culture of their plants. Fred is an accredited American Orchid Society judge in the Pacific South Judging Region. His hybrids have received hundreds of quality awards for orchid enthusiasts from the American Orchid Society and other orchid societies worldwide (email: fred.clarke@att.net; www.sunsetvalleyorchids.com).



[24] *Fredclarkeara* Doubtless 'Sunset Valley Orchids' (No Doubt × *Ctism.* Orchidglade) Who would have thought just a few years ago that *Fredclarkeara* breeding could include this kind of dense spotting? The flower shape and arrangement are also significantly improved, and the wide petals and lip have exceeded our expectations.

[25] *Fredclarkeara* After Dark 'Sunset Valley Orchids' FCC/AOS (*Mo.* Painted Desert × *Ctism.* Donna Wise) The grex *Fdk.* After Dark is widely recognized for its black-colored flowers, but many have spotted flowers and are equally beautiful. Photograph by Charles Rowden.

[26] (*Fdk.* After Dark × *Ctism.* Susan Fuchs) 'Big Spots' We were hoping for bold spotting and a bit more yellow in the background color of this cross. We got the spots, but where did the yellow go?

[27] *Catasetum ivanae* 'Purple Fantasy' This recently-discovered Brazilian species has unique color. The spotting in the lip is almost purple, a very unusual color for *catasetums*. Could this species be the key to unlocking the potential for purple-colored, spotted flowers?

[28] *Fdk.* Doubtless and author sharing a moment in the greenhouse.



# Spotted Cattleyas

Cheetahs of the Cattleya World

LAURA NEWTON





I HAVE A fascination with spotted cattleyas. I once housed the most beautiful *Cattleya* Tripp Johnston only to have it snatched back by its rightful owner while it was in full glorious flower. This beautiful flower put me on a path of seeking out the best spotted cattleyas!

When I was a student judge, I was asked to find information in the literature on spotted *Cattleya* species, but found little on the breeding or hybridization. Species known to have spots such as *Cattleya aclandiae* and *Cattleya amethystoglossa* led me on a quest to learn more by analyzing hybrids, their pedigrees and awards to their offspring.

*Cattleya aclandiae*

*Cattleya aclandiae* is found in Brazil where it grows on horizontal tree branches along the coastal plains some 62 miles (100 km) from the ocean in a hot, moderately dry climate. They grow in a huge clump with hundreds of pseudobulbs and a large, extensive root system (Fowlie 1977). The World Checklist of Selected Plant Families lists, but does not accept, four color forms: forma and variety *alba* that have green, unspotted sepals and petals and a white lip; f. *grandiflora* that has much larger flowers with larger and darker spots; and f. *salmonea* that has a salmon-red base tint (Fowlie 1977). Fowlie also lists a *coerulea* (blue) form. There have been several awards to a *coerulea* form in the past but that form has not been recognized by the WCSPF. In *coerulea* flowers, the lip is generally white with a light, blue-lavender overlay along the margins, and the background color is a clearer green.

As of January 2020, there are 71 (65 quality awards, three cultural awards, two CHMs and one JC) AOS awards to this species. One issue with judging this species has been the awards to colchicine-treated tetraploids and their comparison to 2n (diploid) plants that will naturally be thinner and have less substance. Bill Rogerson has many quality awards to this species for both the diploid forms and the tetraploids. The awarded flowers vary in size from a natural spread of 2.8 to 4.2 inches (7.0–10.6 cm) with varying widths and undulation of segments with varying amounts and intensity to the spotting. I would describe the lips as white, though the standard color forms are heavily overlaid fuchsia at least on the midlobe (on occasion there is a white band directly under the column), most of the side lobes retain the white base color, but are often striated or overlaid with fuchsia. The white columns are heavily



PAUL TUSKES



MILTON WHITMAN



GLEN BARFIELD



GLEN BARFIELD



overlaid fuchsia with white anther caps. There are generally only two flowers per spike, but occasionally they will have three. The flowers are typically incurved, and the margins of the sepals and petals are reflexed, and undulate. The substance should always be firm and the texture should be waxy.

The earliest AOS award photo is from 1968 of the clone 'Naomi' HCC/AOS. I would say it is a typical *C. aclandiae*. It has clear markings, with undulate petals, a recurved midlobe and the cupping that you would expect to see in the earlier awards. 'Ordoyne's Leopard' AM/AOS shows improvement in the darkness of the distinct brown bars, as well as the richness and flatness of the magenta lip. 'Black Knight' AM/AOS has been used extensively in hybridization for its green

- [1] *C. aclandiae* 'KG's Pink Tiger' HCC/AOS; grower and photographer: Greg Allikas.
- [2] *C. aclandiae* 'Ordoyne's Leopard' AM/AOS; grower: Bill Barrett.
- [3] *C. aclandiae* (Coerulea) 'Blue Sky' HCC/AOS; grower: Fred Clarke.
- [4] *C. aclandiae* 'Stephen' AM/AOS; grower: Geoffrey Frost.
- [5] *C. aclandiae* 'Michael' AM/AOS; grower: William Rogerson.
- [6] *C. aclandiae* 'Krull-Smith' FCC/AOS; grower: Krull-Smith.
- [7] *C. aclandiae* 'Memoria Charles Oliveros' grower; Ben Oliveros, Orchid Eros.
- [8] *C. aclandiae* 'Holy Mackerel' AM/AOS; grower: Ben Oliveros, Orchid Eros.
- [9] *C. aclandiae* 'Apollo' AM/AOS; grower: Ben Oliveros, Orchid Eros.

base color with dark mahogany bars that almost completely coalesce covering the base color. 'Stephen' AM/AOS shows what I consider to be the form of a typical jungle-collected flower, in which the dorsal sepal and petals are undulate and have almost completely recurved margins; it shows great contrast and evenness with the dark bars and great purple coloring in the lip and column. 'Michael' AM/AOS (2008) shows what I suspect to be tetraploid traits. It displays fullness of the sepals and petals and an extremely flat lip midlobe. It shows even color distribution and the striations to the lip provide additional interest. 'Krull-Smith' FCC/AOS (2009) shows the same fullness to the segments. The substance and texture is so heavy that you can actually see ridges in the segments and the flat lip that we have come to expect in the line-bred cultivars of today. In 2012 'Memoria Charles Oliveros' AM/AOS shows the same color saturation. I am especially struck by the bright yellow anther cap on this clone, and the flatness of the lip is remarkable. The previous awards just mentioned were the latest awards when I originally wrote my findings in 2013. It is amazing to see what has transpired since then. William Rogerson, Ben Oliveros (Orchids Eros) and Michael Blietz (Exotic Orchids of Maui) have racked up a slew of awards to this species. In 2019 alone, six cultivars were awarded, five of them were presented by Ben Oliveros ('Grace' HCC/AOS, 'Holy Mackerel' AM/AOS, 'Apollo' AM/AOS, 'Alaia' HCC/AOS and 'Melpomene' AM/AOS); all show full form with outstanding color and range in size from 2.75–3.22 inches (7–8.2 cm), with the largest among them being 'Holy Mackerel' AM/AOS. It by far has the largest segments, but with only one flower it scored a scant 83 points. Contrary to all these full-formed flowers 'Salvador' AM/AOS is anything but full form in the segments, and it harkens back to what I affectionately call the "wild species"; what it lacks in fullness, it more than makes up for it with the black-purple blotches that almost completely cover the chartreuse background of the sepals and petals. This is a flower that catches your eye from the get-go. Color is a powerful thing and it has the ability to override everything else. This flower is a testament to that fact.

The first two coerulea forms that were awarded are 'Blue Sky' HCC/AOS exhibited by Fred Clarke in 2002 and the other is 'Krull's Blue Boy' HCC/AOS exhibited by Krull-Smith in 2011. Both have a paler green base color and bluish



GREG ALLIKAS



MILTON HITMAN



MICHAEL BLIETZ



MILTON WHITMAN

cast to the lip. More recently there have been several additional awards — two from 2015: 'Valley Isle' AM/AOS shows an increase in size, greater intensity of color with both flatter form and a flatter midlobe, and 'Deep Blue Violet' HCC/AOS shows intense color and nice width to the segments, a bright violet-blue column and fairly flat lip. The most recent award to 'Pauwela' AM/AOS has heavy and symmetrical mahogany blotches with a nicely shaped, coerulea midlobe and a dark-coerulea column beautifully grown on a large plant with 11 flowers on five inflorescences. These forms could prove useful in creating a line of blue-spotted cattleyas, which Fred Clarke has been working on.

There are also two alba forms that have been recently awarded — 'Odom's Orchids' HCC/AOS (2013) and 'Sunset Valley Orchids' AM/AOS (2017). They are fairly similar in color and form with green sepals and petals and a white lip. Both exhibit thinner dorsal sepals and petals that have undulate margins and lateral sepals that are fairly cupped. The color contrast is striking but they are both devoid of any spotting. Likewise, the first award to 'Kathleen' CHM/AOS has the same coloring and with narrower sepals; however, it is an open flower with one of the largest natural spreads of 3.8-inches (9.6-cm) horizontal by 3.5-inches (9.0-cm) vertical!

In 2017, David G. Hunt of Houston, Texas, presented what appears to be an albescent form, 'Vera Cruz' CHM/AOS. It is described as a pale green flower with pale mahogany spots. The lip and the column are white, apically blushed lavender, the

[10] *C. aclandiae* (Coerulea) 'Krull's Blue Boy' HCC/AOS; grower: Krull-Smith.

[11] *C. aclandiae* (Coerulea) 'Deep Blue Violet' HCC/AOS; grower: William Rogerson.

[12] *C. aclandiae* (Coerulea) 'Pauwela' AM/AOS; grower: Exotic Orchids of Maui, Inc.

[13] *C. aclandiae* 'Kathleen' CCM-AM/AOS; grower: William Rogerson.

segments are fairly narrow and the lip is small with major undulation.

All the cultural awards are grown mounted, a testament to their natural preference to grow out onto the limbs. In 2006, David Walker, Jr. was recognized for growing the largest specimen for the species ever seen by the judging team, 'Erma' CCE/AOS had been grown for 35 years with a massive root system 53-



inches (13-cm) long for a plant comprised of 185 pseudobulbs with six flowering leads. William Rogerson was rewarded for his growing prowess on two CCMs. 'Kathleen' had 17 flowers and buds on nine inflorescences and 'Kathleen II' had 18 flowers and a bud on 10 inflorescences. *Cattleya aclandiae* hybrids

*Cattleya aclandiae* has 191 first-generation progeny and 2,265 total progeny over numerous generations.

The first hybrid registered was *Cattleya* Brabantiae (*aclandiae* × *loddigesii*) registered by Veitch in 1863, which has earned 44 AOS awards from 1978–2020. *Cattleya* Brabantiae is the most highly awarded offspring and also has the most offspring registered of all *C. aclandiae* hybrids. This is a perfect place to begin with the typical color forms that are associated with *C. aclandiae*: those with a pink, bronze or a chartreuse background.

Not all *C. Brabantiae* clones have spotted flowers, but from viewing the awarded clones, about two thirds of them are indeed spotted. The number of flowers ranges from two to 10 flowers per inflorescence with the average falling around four flowers. Some of the highest awarded clones are 'Spotted Flamingo' FCC/AOS, 'Jim Krull' AM/AOS (88 points), and two from 2015, 'Enzobean' AM/AOS and 'Leia Kidd' AM/AOS. The typical, spotted color form has *Cattleya loddigesii* pink color with the *C. aclandiae* spotting (though some do have smaller and fewer spots more like those found in some *C. loddigesii*), on flowers that are fuller, rounder and flatter due to the shape of *C. loddigesii*. The substance and texture is enhanced, and the flower count is reduced by *C. aclandiae*. Three cultivars have recently been awarded in my own judging center that I feel reset the standard for this hybrid 'Frank Smith' FCC/AOS, 'Jordon Winter' FCC/AOS and 'Drey Winter' FCC/AOS, all exhibit fuller form, beautiful spotting and fantastic size.

*Cattleya* Peckaviensis or Peckhaviensis (*aclandiae* × *schilleriana*) is a hybrid that is completely intermediate between the two parents. There are 19 AOS Awards to this cross, all quality awards, and 26 F1 hybrids. All the awards have had either two or three flowers and most have been single inflorescences. The two nicest cultivars that exhibit wonderfully full flowers, both awarded in 2018, are 'Casa de Campo' and 'Ponkan', both receiving AMs, for their dark mahogany spotting and magenta lips.

*Cattleya* Landate (*aclandiae* × *guttata*) is another cross that gives expected



AOS AWARD ARCHIVES

ERNEST WALTERS

WES NEWTON

WES NEWTON

TOM KULIGOWSKI

MICHAEL BLIETZ

WES NEWTON

results. It has 14 AOS awards that are all quality awards, and it has 73 F1 hybrids. While several of the awards show the increased floriferousness from *C. guttata*, the majority of them have an average of four flowers. The flowers all show good color, with bold markings, wonderful substance and glossy texture. The most recent award to 'Ponkan' HCC/AOS has a broad, flat lip.

*Cattleya* Fascelis (*aclandiae* × *bicolor*) has nine AOS Quality Awards and 33 F1 offspring. This cross produces two to

- [14] *C. Brabantiae* 'Spotted Flamingo' FCC/AOS; grower: Kenneth Meier.
- [15] *C. Brabantiae* 'Jim Krull' AM/AOS; grower: Krull-Smith.
- [16] *C. Brabantiae* 'Enzobean' AM/AOS; grower: Kristine Cross.
- [17] *C. Brabantiae* 'Leia Kidd' AM/AOS; grower: Anthony Kina.
- [18] *C. Brabantiae* 'Frank Smith' FCC/AOS; grower: Krull-Smith.
- [19] *C. Brabantiae* 'Jordon Winter' FCC/AOS; grower: Krull-Smith.
- [20] *C. Brabantiae* 'Drey Winter' FCC/AOS; grower: Krull-Smith.



four firm, waxy flowers with increased segment width from *C. bicolor*. They all exhibit a full, flat magenta lip with a white picotee that juts outward. Some have the obvious defined midrib, but that has not seemed to factor negatively in the scoring. My favorite cultivar is 'Frank Smith' AM/AOS as it has wide olive sepals and petals uniformly covered with light burgundy spots, and the dark fuchsia lip is the flattest of the awarded cultivars.

*Rhyncholaeliocattleya* Pali Polka Dot is a cross between *Rlc.* Chinese Bronze and *C. aclandiae*. *Rhyncholaeliocattleya* Chinese Bronze is a *C. bicolor* hybrid that gives a similarly shaped flower in several cultivars to *C. Fascelis*. There have been four quality awards to this cross and all exhibit a distinct *C. bicolor* isthmus lip. Interestingly, the lone awarded cross with more than two flowers (it has four) shows why often with this type of breeding, more flowers are not necessarily better, as seen in the crowded award photo of 'Nalo' HCC/AOS. 'Bronze Goddess' HCC/AOS shows a flower much like *C. Fascelis* with a nice broad and flat lip, but the spotting is rather lackluster. I much prefer 'Puanani' HCC/AOS for, although the sepals and petals are not as wide, they are beautifully marked and the white, open side lobes draw the eye to the center, where the fuchsia blushed column blends perfectly into the magenta midlobe of the lip, which is flat.

Interesting things happen when you breed spotted flowers to nonspotted flowers that have spotting in their background, which are latent in the first generation, but seem to breed spots in further generations. A case in point is *Rhyncholaeliocattleya* Spirit Creek Queen (*C. aclandiae* × Elaine Spotted Star). Now with a name like Elaine Spotted Star you might presume that the flowers would be spotted, and a search on *OrchidWiz* does reveal a cultivar that has tiny spots on the margins, but that is it. The awarded flower 'Linda Roberts' HCC/AOS might have even smaller spots hiding along the marginal veins, but I would not consider either to be a truly spotted flower. When bred to *C. aclandiae*, you get two quite different results. 'Jayne Garrison' HCC/AOS is an olive-green flower with faint mauve veins and what is described as tiny red-purple dots. Now I have blown up the award photo as large as I can and I really cannot see these spots. 'Roberta-Joe' AM/AOS, however, is what I would call a classic spotted flower with tan-pink flowers spotted fuchsia, with fuchsia markings on the lip. This is the gamble that you take



JORGE ENRIQUE CESPEDES TRIGUEROS



BRIAN MONK



WES NEWTON



AOS AWARD ARCHIVES



AOS AWARD ARCHIVES



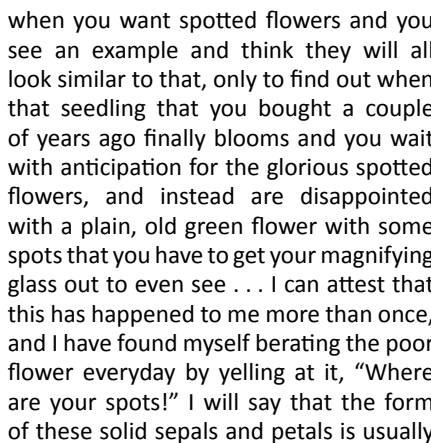
MAURICE MARIETTI



THANG DAM



IRMA SALDANA



TOM KULIGOWSKI



TOM KULIGOWSKI

when you want spotted flowers and you see an example and think they will all look similar to that, only to find out when that seedling that you bought a couple of years ago finally blooms and you wait with anticipation for the glorious spotted flowers, and instead are disappointed with a plain, old green flower with some spots that you have to get your magnifying glass out to even see . . . I can attest that this has happened to me more than once, and I have found myself berating the poor flower everyday by yelling at it, "Where are your spots!" I will say that the form of these solid sepals and petals is usually



above par, and there is really nothing wrong with them, but when you are craving spots, this is little consolation. So, if you want spots, make sure both parents have them, or wait until they are in flower to select them. Something more like *C. Korat Spots*, a cross of *C. aclandiae* and *C. Tiger Spots* (Pink Elephants × Thospol Spot), where all breeding lines lead back to spotted cattleyas. Two cultivars of this cross were awarded in 2016, 'Tú and Lan' HCC/AOS, had two slightly cupped flowers, but the green sepals and petals were heavily spotted dark maroon with a bright fuchsia midlobe on the white lip, while 'Percy's Sidney' AM/AOS had four flat flowers of similar coloring, featuring a much shapelier lip with a complementary fuchsia column. Although the sepals and petals are far from full, the color and spotting are "spot on."

One of my favorite *C. aclandiae* hybrids is *Cattleya* Tripp Johnston (Arthur Boldrini × *aclandiae*). There are six AMs to this hybrid and 17 F1 hybrids for this cross. To me, this hybrid epitomizes all that a *C. aclandiae* hybrid should be. The heavy substance and waxy and glossy, almost leathery texture are welcome, but the standout feature is the green base color almost completely overlaid with red-burgundy blotches that are pleasingly complemented by the fuchsia lip and the contrasting white side lobes. The most recent award to 'Dark Night' AM/AOS exhibits all the positive traits mentioned here.

A recent hybrid that has become a new favorite is *Cattleya* Lacey Michelle Mathern (*aclandiae* × *tigrina*). Through 2019, there are six quality awards to this cross. All show good width to the segments, and bright fuchsia midlobes and columns. I feel drawn to the ones that have darker coloring: 'Drey Winter' AM/AOS, 'Little James Krull' AM/AOS and 'MV Andromeda' AM/AOS, but overall it is a pleasing cross, which makes me wonder why I have not yet added one to my collection!

*Cattleya* Remar's Joy (Precious Stones × Landate) has two awards, the first one to 'Remar' HCC/AOS has nice spotting to the flower, but the sepals and petals have an irregular blotching in between the petals which is really distracting. The magenta lip helps set off the color, but it is bothersome. 'Valley Isle' AM/AOS is a totally different story, the two flowers have light-yellow sepals and petals that are evenly overlaid burgundy with dark chocolate spots that are concentrated along the margins, the magenta midlobe



WES NEWTON

30



ALBERTO RODRIGUEZ

32



BETH LAMB

34



CHARLOTTE RANDOLPH

31



MICHAEL BLIETZ

33

- [21] *C. Peckaviensis* 'Casa de Campo' AM/AOS; grower: Gustavo Barboza.
- [22] *C. Peckaviensis* 'Ponkan' AM/AOS; grower: Krull-Smith.
- [23] *C. Landate* 'Ponkan' HCC/AOS; grower: Krull-Smith.
- [24] *C. Fascelis* 'Frank Smith' AM/AOS; grower: Krull-Smith.
- [25] *Rlc.* Pali Polka Dot 'Bronze Goddess' HCC/AOS; grower: Dennis Olivas.
- [26] *Rlc.* Spirit Creek Queen 'Roberta-Joe' AM/AOS; grower: Joe Grezaffi.
- [27] *C. Korat Spots* 'Tú and Lan' HCC/AOS; grower: Thang Dam.
- [28] *C. Korat Spots* 'Percy's Sidney' AM/AOS; grower: Myriam Pereira.
- [29] *C. Tripp Johnston* 'Dark Night' AM/AOS; grower: Jim Longwell.
- [30] *C. Lacey Michelle Mathern* 'Crystelle' FCC/AOS; grower: Krull-Smith.
- [31] *C. Remar's Joy* 'Remar' HCC/AOS; grower: Renee and Marvin Gerber.
- [32] *Bc.* Theresa Ricci; grower: Lourdes Silva..
- [33] *C. Remar's Joy* 'Valley Isle' AM/AOS; grower: Exotic Orchids of Maui.
- [34] *Bc.* Theresa Ricci 'Red Hawk' AM/AOS; grower: Victor Elliott.



the difference in the structure of the plant, as *Hippodamia* has a very hard, nodosa-type, terete (pencil-like) leaf, while Theresa Ricci has a broader cattleya-type leaf. Interestingly a second generation *Bc.* Hawaiian Kaleidoscope (*Bc.* *Hippodamia* x *Bc.* Richard Mueller) 'Crownfox Canary' AM/AOS shows five large, 5.4-inch (13.6-cm), chartreuse stellate (star-shaped) flowers with oxblood spots complemented by a white lip also covered in fuchsia spots, plus an additional six buds on the two inflorescences. This type of breeding might just be the pathway to creating standard spotted cattleyas with spotted lips.

This same overall color distribution and form can be seen in a second generation cross *Brassocattleya* Rustic Spots (*Bc.* Richard Mueller x *C.* Landate), where *Bc.* Richard Mueller incorporates the spotted lip from *B. nodosa* with the typical *C. aclandiae* coloration from *C.* Landate. This popular hybrid has 13 AOS awards with varying degrees of spotting and slightly different coloration as seen in the heavily spotted 'Remar' AM/AOS, and the more recently awarded 'Fat Lip' HCC/AOS that shows consistent spotting throughout. The flower count ranges from two to seven flowers, but most have four flowers.

And finally, an interesting F1 hybrid cultivar not yet mentioned, that has been used extensively in hybridization but has never received an AOS award is *Cattleya* Thospol Spot 'Tricumporn' AM/CST (Bhimayothin x *aclandiae*). *C.* Thospol Spot has 34 F1 offspring. It is the parent of the following notable spotted hybrids.

*Cattleya* Green Emerald (x Elizabeth Mahon) has six awards that show increased size of up to 4.5-inches (1.14-cm) width with overall good form, great color and good substance and texture. The clone 'Emerald Queen' has been mericloned, but variations do occur in this process so not all 'Emerald Queen' clones look alike.

Another of its progeny is *Cattleya* Pradit Spot (x *schilleriana*), which has four AOS quality awards. The only unfortunate fact about this hybrid is that all four awards have only two flowers each, but the depth of spotting is superb as in the clone 'Black Prince' AM/AOS! There is an interesting second-generation hybrid, *Cattleya* Quest Picante. When I visited the Quest Orchid nursery, they had lots of plants with a clonal cross of (*C.* Pradit Spot x *Cattleya* Nestle) but when I asked about the cross as I could not find a registration for it, the owner told me that it was *C.*



ROBERT CLEVELAND

35



JIM TEAR

36



NILE DUSDIEKER

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BRIAN MONK

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GREG ALLIKAS

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TECK HIA

40



KEITH DAVIS

41



RICHARD CLARK

42



TOM KULIGOWSKI

43



MALCOLM MCCORQUODALE

44



Quest Picante, but that hybrid is listed as (*C. Pradit Spot* × *C. Nestor* (1914)). Since *C. Nestor* is (*Ophir* × *warszewiczii*) with *Ophir* being (*C. dowiana* × *C. xanthina*), somehow I do not think that could be the correct parentage and when I presented it for judging in my center, they refused to look at it since the flower did not match the breeding, even though there are plenty of prior awards to the hybrid, albeit with the wrong parentage registered. What makes it even worse is that there is no Nestle, so there is really no telling what the true breeding is. *Cattleya* Quest Picante has four AOS awards and the flower count did increase to between three and seven flowers all in the 3.5–3.75 inch (9–9.8 cm) range, and all exhibit decent form and really nice overall spotting with broad midlobes.

On the other end of the floriferousness spectrum is *Rhyncholaeliocattleya* Hsinying Leopard (Waianae Leopard × *C. Thospol Spot*) that had 10 flowers on one inflorescence. The natural spread was 3.9 inches (10 cm). As popular as *C. Waianae Leopard* is, I find this hybrid has a more, well-defined spotting pattern.

If you follow the typical pink-bronze-chartreuse color forms through further generations, then you find fuller and flatter flowers with well-defined spotting, with firm substance and waxy or glossy texture and hopefully a greater flower count. This goal was achieved by Phelps Farms when they created *Cattleya* Day Tripper (Tripp Johnston × Caudebec), which has received seven AOS quality awards. The cultivar ‘Robert Palmer’ had 17 flowers and three buds on two inflorescences with richly colored, strongly spotted flowers. The more recently awarded ‘Fuerte’ AM/AOS had 20 cream, purple-spotted flowers on two inflorescences, the sepals were more densely spotted and it had a white and lavender lip. The two heads of 3.3-inch (8.4-cm) flowers are nicely displayed.

*Cattleya* Fort Motte (Mrs. Mahler × *Brabantiae*) incorporates the benefits of *C. guttata* with the attributes of *C. aclandiae*. There are 10 AOS quality awards to this cross. Some exhibit the tall, upright inflorescences and generous number of flowers (up to nine) from *C. guttata* while others, similar to *C. aclandiae*, show a shorter inflorescence with two to three flowers. The differences can be seen between ‘Marcia Richter’ HCC/AOS with three flowers and ‘Bronzed Beauty’ AM/AOS with seven flowers.

*Cattleya* Lulu (*Brabantiae* × Penny Kuroda) is extensively used in hybridization with 63 F1 offspring. It has earned four



GREG ALLIKAS

MALCOLM MCCORQUODALE



MAURICE MARIETTI

MICHAEL BIETZ



CARMEN JOHNSTON



ARNOLD GUM



[35] *Bc.* Rustic Spots ‘Fat Lip’ HCC/AOS; grower: Robert Cleveland.

[36] *C.* Green Emerald ‘Emerald Queen’ AM/AOS; grower: Laura and Wes Newton.

[37] *C.* Pradit Spot ‘Isabel’s Delight’ AM/AOS; grower: Natts Orchids.

[38] *C.* Quest Picante ‘Quest 2’ HCC/AOS; grower: Quest Orchids, Inc.

[39] *C.* Day Tripper ‘Palmer Orchids’ HCC/AOS; grower: Plantio La Orquidea.

[40] *C.* Fort Motte ‘Marcia Richter’ AM/AOS; grower: Robert J. Richter.

[41] *C.* Fort Motte ‘Bronzed Beauty’ AM/AOS; grower: Keith Davis.

[42] *C.* Lulu ‘Hot Pink’ HCC/AOS; grower: Fred Clarke.

[43] *Bc.* Hawaiian Kaleidoscope ‘Crownfox’ AM/AOS; grower: R.F. Orchids, Inc.

[44] *C.* Lulu Land ‘Autre Vie’ HCC/AOS; grower: Nina Rach.

[45] *C.* Mark Jones ‘Crystelle’ AM/AOS; grower: Krull-Smith.

[46] *C.* Katherine Clarkson ‘Remar’ AM/AOS; grower: Renee and Marvin Gerber.

[47] *Rlc.* Sun Spots ‘Sandy’ AM/AOS; grower: Steve and Geri Male, Fishing Creek Orchids.

[48] *Rlc.* Maui Freckles ‘Summer Spots’ AM/AOS; grower: Exotic Orchids of Maui, Inc.

[49] *Rlc.* Lots of Spots ‘Lady Stella’ AM/AOS; grower: Yife Tien.

[50] *Rlc.* Jerry Spencer ‘Rainbow Valley’ AM/AOS; grower: Jerry Spencer.

AOS quality awards and shows increased floriferousness of up to 11 flowers on some clones. ‘Hot Pink’ AM/AOS shows the vibrancy of this cross with pink flowers heavily overlaid with dark maroon spots. This cross shows similar results to when combining *C. aclandiae* and *C. guttata*. When crossed back to *C. aclandiae* to create *Cattleya* Lulu Land, the form shows improvement in segment width. Three of the four awarded flowers have open side lobes that provide an interesting central focal point, due to the varying shades of purple striations. ‘Autrie Vie’ HCC/AOS shows the best color, but the flowers are a bit cupped.

In 2000, Krull-Smith combined the attributes of *C. Fascelis* with *C. Caudebec*



to create *Cattleya* Mark Jones, named for a judge in the Florida North-Central Judging Center. As the story goes, Frank Smith asked Mark if he could name an orchid for him and knowing that Mark was not overly thrilled with the large labiate cattleyas, he would not tell him the genus of the flowers. He wanted him to come and see them in person. As soon he laid eyes on them, Mark was smitten and mentioned that as a student he had been on the judging teams that awarded both parents of the cross, so he was quite honored to be a part of spotted *Cattleya* breeding history. The clone 'Crystelle' AM/AOS had five flowers per inflorescence and shows distinct markings with full petals.

Fred Clarke of Sunset Valley Orchids has had great success with *C. Mark Jones* in hybridization. He has used it to cross over into the yellow-spotted breeding lines to create *Cattleya* Katherine Clarkson (Mark Jones × *Jungle Gem*) and *Rhyncholaeliocattleya* Sun Spots (*C. Mark Jones* × *SunCoast Sunspots*; Clarke 2013). *Rhyncholaeliocattleya* Sun Spots was crossed to *Rhyncholaeliocattleya* Pauwela Polka Dots (*Penny's Spots* × *C. Penny Kuroda*) to create *Rhyncholaeliocattleya* Maui Freckles. There are two awards to this hybrid. 'Summer Spots' AM/AOS has the best form with full, ovate petals and a flat midlobe of the lip, and has a pleasing deep apricot color with burgundy spots and a deep purple overlay on the lip.

*Cattleya* Katherine Clarkson was also bred to *Cattleya* Green Emerald to create *Cattleya* Jerry Spencer. The cultivar 'Rainbow Valley' AM/AOS was awarded with two, 3.7-inch (9.4-cm) flowers that show fairly flat flowers with extremely full segments, cream sepals and ovate petals overlaid with green and spotted burgundy, and a white lip with open side lobes that creates an even fuller appearance with fuchsia broad midlobe and side lobes that were faintly blushed fuchsia, while the apices are splashed with fuchsia creating a pleasing, balanced flower.

Another recent *C. Katherine Clarkson* cross is *Rhyncholaeliocattleya* Lots of Spots when crossed to *Rlc. Leopard Gem* (*Waianae Leopard* × *C. Jungle Gem*). The resulting seven, orange-spotted-burgundy flowers of 'Lady Stella' AM/AOS are slightly taller than wide and, while the color is fabulous with the fuchsia midlobe, the fenestration (open space) between the dorsal sepal and petals is bothersome as are the slightly narrow, long lateral sepals.

Jim Roberts of Florida SunCoast Orchids crossed *Brassavola* Little Stars to



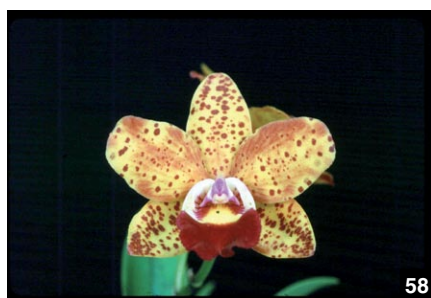
H.A. RUSSELL, III



KENNETH JACOBSEN



AOS AWARD ARCHIVES



CHARLES ROWDEN



KENNETH JACOBSEN



KENNETH JACOBSEN



MARCUS VALENTINE



AOS AWARD ARCHIVES

*C. Mark Jones* to create *Brassocattleya* Florida Stars. He has had several cultivars awarded, two of which are spotted. 'Spring Zing' AM/AOS has a fuller chartreuse flower with even burgundy spotting on a six 3.8-inch (9.7-cm) flowers, while 'Elise' AM/AOS had 10, more brassavola-like flowers with slender sepals and petal of the same coloration, but much heavier spotting, that were much larger at 4.3 inches (11 cm). This type of flower takes you away from the full, flat, round shape that we are all so used to gravitating to, but they are certainly lovely in their own right.

- [51] *Bc. Florida Stars* 'Spring Zing' AM/AOS; grower: Jim Roberts, Florida SunCoast Orchids.
- [52] *Rlc. Durigan* 'Aquarius' HCC/AOS; grower: Orquidario Durigan.
- [53] *Rlc. Durigan* 'Jupiter' AM/AOS; grower: Orquidario Durigan.
- [54] *Rlc. Durigan* 'Estrella de Barnard' HCC/AOS; grower: Orquidario Durigan.
- [55] *C. Tropical Pointer* 'KaSaMi' AM/AOS; grower: Jack and Beverly Tipton.
- [56] *C. Tropical Chip* 'Karuizawa' AM/AOS; grower: Shozo Hoshino
- [57] *C. Jungle Elf* 'Kevin' HCC/AOS; grower: Orchid Center.
- [58] *C. Jungle Gem* 'Luetticke's Spots' HCC/AOS; grower: Luettickes Orchids & Lab.



In 2008 in Brazil, Orquidario Durigan received an AQ/AOS for *Rhyncholaeliocattleya* Durigan (Waianae Leopard × *Cattleya* Corcovado) for unparalleled excellence in spotted hybridizing. The award description continues with: consistent spots, heavy substance, good flower count and a pleasing full range of color. On that same day, 10 cultivars received flower quality awards!

*Cattleya* Quest's Super Spots (Pradit Spot × Motte Spot) has *C. aclandiae* in three lines of its breeding, three generations back. This hybrid shows some problems in long-term breeding with a majority of its inheritance from *C. aclandiae* in the background. It seems to be reverting back to the open form of *C. aclandiae* and *C. schilleriana*. The lip does not show the fullness or flatness that we hope would have been passed along. The spotting, though distinct and nicely marked, shows a bleed through of the spots on the back of the left petal. This is a problem that the hybridizers try to avoid, as it is a distraction. The more breeders can increase depth of the base color and spotting on the front, the less likely it is for the spots to show through.

Another hybrid that has three lines to *C. aclandiae*, but with different results is *Cattleya* Taiwan Green Emerald (Green Emerald × Hsinying Cognac). This hybrid does have several lines to *C. loddigesii* along with some *Cattleya intermedia*. It is hard to tell if it has only one inflorescence on 'Chun Sun' TRO/TOGA in the award photo, but it appears so as the flowers seem quite crowded. This crowding has caused severe cupping in all the flowers. The spotted patterning is nicely arranged. Although the midlobe of the lip is not perfectly flat, the ruffles nicely complement the ruffled appearance of the petals. The slight rolling back of the side lobes blends nicely.

The best way to guarantee spotted progeny is to use two spotted parents or a spotted parent to a hybrid that has spotted breeding in it. So, I am always surprised to find a hybrid that does not abide by this theory as in *Rhyncholaeliocattleya* Walhalla 'Frog Level'; although never awarded, it is an interesting flower with an unusual breeding (*C. Fort Motte* × *Rlc. Golden Galleon*). *Rhyncholaeliocattleya* Golden Galleon is *Rhyncholaeliocattleya* Xanthette by *Rhyncholaeliocattleya* Camilla. *Rhyncholaeliocattleya* Camilla is chock full of *Cattleya dowiana* and the only other slightly spotted species in the background some six generations back is



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MALCOLM MCCORQUODALE



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CHARLES ROWDEN



61

LYNN O'SHAUGHNESSY



62

ARNOLD GUM



63

MAURICE MARIETTI



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LARRY HENNESSEY



65

LOREN BACHMAN



66

JEA SHANG PHOTOGRAPHY

*Cattleya granulosa*.

One thing that is critical to remember in hybridization is the anomalies. This is the only clone of *Rlc. Walhalla* I have seen and according to the folks at Carter & Holmes, only a handful of them had spots, but all the other spotted progeny were muddy. Most were solid lavender or golden yellow. This color form was atypical for the cross, hence why it was cloned. There are often a few plants in a cross that are different. It is important to remember that plants that we see often have been hand selected and are not representative of what the majority of the cross looks like. This is why an AOS Award of Quality can be so important: it shows the consistency in quality of the cross,

- [59] *C. Katherine Clarkson* 'Sunset Valley Orchids' HCC/AOS; grower: Fred Clarke.
- [60] *C. Lucky Gem* 'Sarah' AM/AOS; grower: Gary Smith.
- [61] *Rlc. Suncoast Sunspots* 'Raymond Beecher' AM/AOS; grower: Roland Wilson.
- [62] *Rlc. Serval Gold* 'Arnie' HCC/AOS; grower: Arnold Gum.
- [63] *Rlc. Dendi's Gem* 'Yes, Dear' AM/AOS; grower: Sarah Hurdell.
- [64] *C. Sarah Elizabeth* 'EpiJim' AM/AOS; grower: James Jeansonne.
- [65] *C. Carlos E. Ospina* 'Sunset Valley Orchids' HCC/AOS; grower: Fred Clarke.
- [66] *Rlc. Budei Win Eyes* 'SK1' AM/AOS; grower: Shih Kuang Orchids.



allowing you to have a greater expectation of the other plants in the cross.

*Cattleya* Tropical Pointer (Tropic Glow × *intermedia*) is a hybrid that had me totally flumoxed! The only spotted flower in its lineage is *C. aclandiae* and that is four generations back, except for the rare instance that the *C. intermedia* used might have had spots (but they are not known for passing that along, and certainly not to the extent that this hybrid exhibits spots). Even more confounding is that the *C. aclandiae* comes through *Cattleya* Hawaiian Glow as a parent of *C. Tropic Glow*, and *Cattleya milleri*, which is a deep orange-red “rupicolous-laelia” species that tends to be dominant for breeding through its rich, dark color. However, I did come across a photo of *C. Tropic Glow* that shows it did indeed exhibit the spots that would be expected to produce spotted progeny. Munekazu Ijiri from Suwada Orchid Nursery explained to me that indeed the original cross of *C. Tropic Pointer* was made with a spotted form of *C. intermedia*. Thus, solidifying the fact that all the progeny would be spotted. Conversely, he remade the cross with a nonspotted *C. intermedia* and none of the progeny were spotted.

*Cattleya* Tropic Glow was also bred to *Cattleya* Cherry Chip to create *Cattleya* Tropical Chip. Most of the awarded ones have minute spots, but I would hardly call them spotted, as seen in the clone ‘Fuji’ HCC/AOS and ‘Andromeda’ HCC/AOS.

But the killer is ‘Karuziawa’ AM/AOS, where the spots came through on the sepals creating a beautiful contrast that also complements the magenta petals and lip. You can expect from breeding a spotted flower to a nonspotted flower fine dotting on the majority, some progeny devoid of spots and some that get them in loads!

The charm of *C. Tropic Pointer* is obviously in the spotting, and the variety of colors is great for the collector. The form is symmetrical and seems consistent throughout each cluster of flowers, which average over five flowers per inflorescence. Given the positive attributes, this hybrid seems a shoo-in for breeding, but according to Fred Clarke of Sunset Valley Orchids, it is not a good breeder as the three or four times that he has used it, only one plant has come out spotted! According to Clarke (2013), Manukazu Ijiri has had equally disappointing results breeding with it. *Cattleya aclandiae* yellow with red-spotted hybrids

That brings us to the quest of creating

yellow cattleyas with red spotting, a task that seems easy enough, but that has been some 25 years in the making. Clarke (2013) said that the last 10 years of hard work is finally beginning to pay off. His end goal of producing bright yellow flowers with distinct deep red spots with increased flower count (three to 10 flowers) on good, strong stems with fuller sepals and petals, with firm substance and excellent texture is right around the corner.

The secret to obtaining this color factor is the use of *Cattleya* (aka *Laelia*) *esalqueana*, a bright yellow rupicolous species that has diminutive bright yellow flowers that are 1.5-inches (3.8-cm) wide. The original pairing of *C. esalqueana* and *C. aclandiae* produced *C. Jungle Elf*, a hybrid that has become the foundation of this color form. *Cattleya* Jungle Elf has received 10 AOS quality awards. There are two to four, bright yellow flowers 2.6-inches (6.5-cm) wide with red spotting and red on the midlobes of the lip per inflorescence. To me, this hybrid proves that size does not matter as much to the public as color does and spotted flowers seem to be big sellers. The majority of the awards to *C. Jungle Elf* are HCCs, and I would attribute that fact to the open form.

It is fortunate that the color is stable and spots prevalent in its progeny as this has led to the many great hybrids with this color form. There are two other standouts according to Fred Clarke and this was echoed by Roy Tokunaga, and they both involve *C. Jungle Elf*: they are *C. Jungle Gem* and *Rlc. SunCoast Sunspots*.

*Cattleya* Jungle Elf was bred to *Cattleya* Precious Stones (a *C. aclandiae* cross where the red spots were suppressed allowing for solid red flowers, yet the spotting pattern is in the genes and allows it to produce beautiful spotted progeny when bred to spotted flowers) producing *C. Jungle Gem*. *Cattleya* Jungle Gem has received four AOS quality awards. Three of the awards have two flowers per inflorescence with ‘Up The Kreek’ AM/AOS having four. The awarded clones all have distinct spotting with a yellow base color. The average flower size is 2.8-inches (7.2-cm) wide, which is intermediate between the 2.6 inches (6.5 cm) of *C. Jungle Elf* and the 3 inches (7.5 cm) of *C. Precious Stones*. Along with the positive influences of color and small plant size unfortunately comes some problems, like the short, weak flower stems coming through from *C. Precious Stones* and the suffusion of red coloring on the yellow background as

seen in the Australian award ‘Tara’ HCC/AOC that I personally find distracting, compared to the clear and clean yellow flowers with more distinct markings in cultivars like ‘Inca Gold’ HCC/AOS.

*Cattleya* Jungle Gem has 29 F1 offspring, 11 of which have garnered AOS awards. When they are bred to spotted flowers, they generally produce spotted flowers; when bred to nonspotted flowers the results can vary with most being nonspotted.

The most highly awarded offspring is *C. Katherine Clarkson* (Jungle Gem × Mark Jones), which has five AOS awards. All have the desired yellow with red or mahogany spots in varying degrees of intensity from the finer ‘Emily’ HCC/AOS to the more concentrated and coalesced ‘Remar’ AM/AOS, and all have deep purple-fuchsia lips. The majority have only two flowers, but the most recent, ‘Krull-Smith’ AM/AOS, has three. The size has increased to an average of 3.35 inches (8.5 cm). *Cattleya* Katherine Clarkson was bred to *Rlc. SunCoast Sunspots* to create *Rlc. Stippled Sunset* that has three recent AM/AOS awards. They all exhibit the bright, golden-yellow base with bold oxblood spots. The two most recent awards are 3.94 inches (10 cm) and have three or four flowers.

*Cattleya* Lucky Gem is a cross of *C. Jungle Gem* and *Cattleya* Lucky Charms (Gene May × Jungle Elf) so it has a double dose of *C. Lucky Charms*. You end up with only two or three flowers with an average natural spread of 2.4 inches (6.2 cm), but the intensity of color is fabulous. The full flowers with little fenestration (space between the sepals and petals) could prove to be useful in future hybridization, especially ‘Sarah’ AM/AOS that shows fuller form.

*Rhyncholaeliocattleya* SunCoast Sunspots was a breakthrough in breeding for flower size and color (Clarke 2013). It is a cross of *C. Jungle Elf* and *Rlc. Waianae Leopard* (Peach Cobbler × *C. Penny Kuroda*), which is chock full of *C. guttata*. *Rhyncholaeliocattleya* Waianae Leopard passes on larger and more flowers, while *C. Jungle Elf* gives its yellow color with red spots. *Rhyncholaeliocattleya* SunCoast Sunspots has eight AOS awards with an average natural spread of 3.3 inches (8.5 cm) and two to four flowers per inflorescence. All awarded progeny have the desired color pattern. The AMs have fuller and flatter form and distinct spotting and vivid coloration. The HCCs for the most part have weaker color and form.



There are eight F1 hybrids to *Rlc.* SunCoast Sunspots of which three have received an AOS award. Most notable is the cross with *C. Mark Jones* that makes *Rlc.* Sun Spots. The number of flowers per inflorescence for *Rlc.* Sun Spots was only two in the first two awards but several others have ranged from five to eight. It is possible that these first two awards were awarded to young plants and given time and growth we should expect more flowers. The average natural spread of all the awards is 4.4 inches (8.6 cm), slightly lower than the average of the first two, probably because the original awards had fewer flowers and thus more strength went in to enlarging the size of fewer flowers. 'Sandy' AM/AOS shows some pelorism in the petals coming through from *C. Caudebec* along with full form.

When bred to *Rhyncholaeliocattleya* San Diego Hot Spots to create *Rhyncholaeliocattleya* Serval Gold, the cultivar 'Arnie' HCC/AOS shows marginal maroon spotting and veined feathering giving it a unique combination of markings that are complemented by a purple midlobe, and white side lobes and column with an apical purple spot.

When *Rlc.* SunCoast Sunspots was bred to *C. Jungle Gem* resulting in *Rhyncholaeliocattleya* Dendi's Gem, the color held strong, but the first couple of awarded flowers were smaller at 3.03 inches (7.7 cm) and not quite as full and round. All that changed when 'Yes, Dear' AM/AOS was awarded in 2017 with four full, rounder flowers with even coloring and spotting over the 3.5-inch (9-cm) flower, while 'Adam' HCC/AOS shows fantastic depth of color, but it is a bit fenestrated.

Clarke has already used *Rlc.* Sun Spots in hybridization and is anxiously awaiting the flowering of the cross with *C. Katherine Clarkson*, which has been registered as *Rlc.* Naomi's Delight.

Roy Tokunaga of H&R Nurseries bred *C. Jungle Elf* back to *C. aclandiae* to produce *Cattleya* Jungle Eyes. Several of the progeny are interesting, including, 'Linwood' AM/AOS, 'Panther' HCC/AOS and 'Tiger' HCC/AOS, which have pulled through the *C. aclandiae* genes and more closely resemble that parent, while the others show the improved form from *C. Jungle Elf*. From my own experience with this hybrid, the plants grow much more like *C. aclandiae* and tend to want to ramble. The color of mine have been a profoundly deep yellow with highly contrasting spots.

Another *C. Jungle Elf* hybrid is

*Cattleya* Sarah Elizabeth (*Mark Jones* × *Jungle Elf*) and the cultivar 'Epilim' AM/AOS had four, relatively flat flowers on one inflorescence, with chartreuse sepals and petals heavily spotted oxblood and a nicely presented, ruffled magenta lip. There is one other award to the grex 'Unicorn' HCC/AOS, which is indeed green with a magenta lip that is totally devoid of spots, a rarity indeed!

An additional hybrid that glorifies *C. Jungle Elf*, is *Rhyncholaeliocattleya* Budai Win Eyes, the other parent is *Rhyncholaeliocattleya* Budai Win, a hybrid that has *C. aclandiae* on both sides of the breeding, but on the bottom side, it is four generations back and is the only spotted cattleya in the breeding. *Rhyncholaeliocattleya* Budai Win 'SK1' AM/AOS has bright-chartreuse flowers with large burgundy spots on the sepals, and the petals have a slightly peloric look to them with apical burgundy flares and some small, marginal spots, complemented by a yellow lip with a purple midlobe. With all that going on in a fairly small flower (6.5 cm), it could almost be distracting, but there is something bold and whimsical about it, and in many ways it shows the strength of *C. aclandiae* genes.

A second-generation hybrid that has had outstanding results is *Cattleya* Carlos E. Ospina (*Jungle Jewel* × *Sandra Turner*). *Cattleya* Jungle Jewel is *C. Jungle Elf* × *Cattleya* Tangerine Jewel (a solid-colored flower), and *C. Sandra Turner* is *C. Lulu* × *C. Landate*, two aforementioned spotted *C. aclandiae* hybrids. Surprisingly most of the progeny have been spotted. This is surprising given that all the photos that I can find of *C. Jungle Jewel* are solid-colored flowers, so like *C. Precious Stones*, the spots must be hiding only to come out when bred to a spotted flower.

Early hybridization of *C. aclandiae* proves to be a give and take. To get the desired color, you have to give up some on floriferousness and size, and then attempt to breed those things back in without losing the intense color and spotting.

So what have we learned about *C. aclandiae* and its hybrids?

As a species:

- There are clear distinctions between the thinner segments and cupping of the natural species, the fullness and flatter appearance of the tetraploids, and the improved line-bred species.
- Two flowers are generally the norm.
- A flat lip is highly desirable.
- Colors should be clear and spotting

bold and distinct.

- The substance should be firm and the texture waxy.
- A cupped dorsal is perfectly acceptable.

The chartreuse-bronze-pink base color hybrids:

- They tend to have two to three boldly spotted flowers.
- The lips should be full, flat and typically lavender.
- They should have heavy substance and waxy texture.

Size usually falls between 3.1 and 3.7 inches (8.0–9.5 cm).

- F1 hybrids have the tendency to have cupped flowers, especially the dorsal sepal. In later progeny it will depend on the hybrids used and other species involved, but flatter form is more likely to be awarded.

For the yellow base-color hybrids, you should expect:

- More open form.
- Deep yellow coloring with pronounced dark spotting
- Size ranges from 2.5 to 3.1 inches (6.4–8.0 cm).
- Average flower count of two to five flowers.
- Size and flower count should increase in future generations.
- Firm substance and waxy texture.
- Taller inflorescences.

#### *Cattleya amethystoglossa*

*Cattleya amethystoglossa* is found mostly in Bahia, but is also found in Salvador, Guarapari and Esperito Santo. It grows on trees and, due to deforestation, most recently has been found primarily on the topmost crowns of palm trees where their roots receive plenty of moisture even in the dry season. They grow in full, bright light, but are protected by lichen that cover the leaves and protect the plant from excessive light and prevent evaporation from the upper leaf surface (Fowlie 1977). The pseudobulbs can average 9.8 to 19.7 inches (25–50 cm). The flowers are borne on a 2.8–7.1-inch (7–18-cm) peduncle that emerges from a dried sheath (Fowlie 1977). The sepals present in an inverted Y or almost a wish-bone shape with reflexed apices. The flowers are cream white with red-lavender spots (minute and concentrated distally on sepals, heavier and larger on petals). The lip is typically solid fuchsia on the midlobe with flared apices of the folded-over-the-column side lobes. According to Fowlie, there should be eight to 12 flowers averaging 2.8 inches (7.0 cm); however, AOS awards average 12 flowers





[67] *C. amethystoglossa* 'Crownfox III' AM/AOS grown by R.F. Orchids, Inc. Photograph by Greg Allikas.

[68] *C. amethystoglossa* 'Orchidglade' AM/AOS grown by Jones & Scully Orchids. Photograph from the AOS Award Archives.

[69] *C. amethystoglossa* 'Carla Kreider' AM/AOS grown by Wayne Kreider, VMD. Photograph by Maurice Marietti.

[70] *C. amethystoglossa* 'The Bright Spot' HCC/AOS grown by Ben Oliveros, Orchid Eros. Photograph by Glen Barfield.

[71] *C. amethystoglossa* (Coerulea) 'Cornflower Blue' AM/AOS grown by Exotic Orchids of Maui, Inc. Photograph by Fred Rindlisbacher.

[72] *C. amethystoglossa* 'Fajen's Orchids Too' AM/AOS grown by Fajen's Orchids. Photograph by Wes Newton.

[73] *C. amethystoglossa* 'H&R 3' CCE/AOS grown by H&R Nurseries, Inc. Photograph by Alyn Nishioka.



per inflorescence and a median natural spread of 3.4 inches (8.6 cm).

The early awards show flowers that have apically curled back sepals and porrect (held forward) petals, as seen in 'Johnson' AM/AOS from 1965 and 'Coastal' AM/AOS from 1967. The form from 1965 to 1985 remained consistent. The fenestration is evident and the width of the segments are similar.

There seems to be a change that took place in 1986 as suddenly the fenestration disappeared and the segments widened. Maybe it was a breakthrough in line breeding or perhaps it was the influx of tetraploids. Luiz Hamilton Lima (2005) notes that several of the best cultivars, including 'Orchidglade' AM/AOS, were cloned and some of the progeny came out larger and with fuller segments and more pronounced spotting due to ploidy differences.

The award to 'Carla Kreider' AM/AOS (87 points) in 2006 shows the extent that ploidy provides a full, distinctively marked flower. The downside is the rather crowded presentation and the cupping of the flowers. The award describes this as a glowing inflorescence with 15 symmetrically arranged flowers on one inflorescence. It has heavy substance and waxy texture that would have enhanced the glow. 'Exotic Orchids' AM/AOS (86 points) in 2012 was a large flower with a natural spread of 3.9 by 4.4 inches (10 × 11.2 cm) and had 25 flowers on two inflorescences. The overall form of the sepals and petals looks full, but the lip is reflexed as are the apices of the sepals and petals. You can see some color blushing along the margins of the petals and the apices of the sepals, which I find distracting. 'The Bright Spot' HCC/AOS is described as having outstanding intense color. Given the cupped appearance and the diminutive size at 2.6 by 2.9-inches (6.6 × 7.4-cm) natural spread, color obviously played a large role in this award. In one photo, you can also see some raspberry blushing and the silhouette of the spots on the reverse side showing through. It is interesting to see the spotting on the pedicels. From 2013 to present, there has been a real tendency for fuller flowers. 'Akhtar' AM/AOS has a very interesting color pattern with the plum spotting coalesced along the margins of the petals, giving an almost peloric effect! Fajen's Orchids has two of the most recent awards that exhibit the fullness that now seems to be the norm, one a standard pink 'Fajen's Orchids' AM/AOS and a more lavender form 'Fajen's Orchids Too' AM/AOS, both are only moderately cupped



MALCOLM MCCORQUODALE

74



JAMES HARRIS

75



FRED RINDLISBACHER

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GLEN BARFIELD

77



GREG ALLIKAS

78



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ARNOLD GUM

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- [74] *C. Interglossa* 'St. John's Bluff' HCC/AOS; grower: William Caldwell.
- [75] *C. Interglossa* 'Hackneau' AM/AOS; grower: Courtney Hackney.
- [76] *C. Interglossa* 'Exotic Orchids' AM/AOS; grower: Exotic Orchids of Maui, Inc.
- [77] *C. Leoloddiglossa* 'Hot Tuna' AM/AOS; grower: Ben Oliveros, Orchid Eros.
- [78] *C. Tomonori* 'Puanani' AM/AOS; grower: Jean Wilson.
- [79] *C. Mandu* 'Cheryl Lynn' HCC/AOS; grower: Alan Koch, Gold Country Orchids.
- [80] *C. Leoloddiglossa* 'SVO Speckled Blue' FCC/AOS; grower: Fred Clarke.



and show little to no fenestration.

There have been six quality awards and a JC to the coerulea form of *C. amethystoglossa*. These have been awarded from 2007 to 2012: 'Nobile' HCC/AOS and 'Winston' AM/AOS in 2007, 'Caliman' HCC/AOS in 2008 and 'Cornflower Blue' AM/AOS in 2012. It is interesting to see the variation in the spotting and depth of blue color. 'Cornflower Blue' shows an advance in fullness possibly due to ploidy. These awards fall on the smaller end of the size spectrum at an average natural spread of 3.5 by 3.7-inches (9.0–9.4-cm) range. One of the most recent awards 'Doña Ana' AM/AOS harkens back to having open form, but is flat, which pushes the natural spread to 4.6 inches (11.6 cm). This color form will surely bring some new and interesting blue spotted hybrids!

When 'Hutch' AM/CCM/AOS received its AM/AOS in 1984, it had 22 flowers on one inflorescence. When its owner received a CCM of 95 points (which would now be considered a CCE/AOS), it had 150 flowers on seven inflorescences with symmetrically arranged growths in a 12-inch (30-cm) plastic tub. This set an early, high standard for excellence in culture. H&R Nurseries has several awards to this species and two cultural awards of note: 'H&R 4' received a CCE of 90 points in 2009 with 52 flowers on six inflorescences on a plant that was 31.5 inches (80-cm) tall by 35 inches (89 cm) wide and, interestingly, was grown in a 9.9 inch (25 cm) pot with two additional pots of the same size added as the plant matured. 'H&R 3' received its CCE (90, 2008) with 51 flowers on five strong inflorescences up to 37.4 inches (95 cm) tall. To me, the true majesty of this species is the magic that happens when you blend a full, segmented flower with superior arrangement, it will make you whip your head around to see just what it is that you are looking at. I have personally had this happen with my cultivar 'Ken Roberts'; although never awarded, everyone that has seen it stands in awe of the majesty of the head of flowers. I think that two quality-awarded plants that exhibit this wonder are 'Lea' AM/AOS (82, 1988) with 33 flowers on two inflorescences and 'Marianne' HCC/AOS (76, 1988) had 38 flowers on two inflorescences. This species has the ability to perfectly and symmetrically arrange a cluster of flowers at the end of tall, strong inflorescences with interesting spotting patterns and a complementary bright, vivid lip that calls out to you. Sadly, these wonderful characteristics are not readily



AOS AWARD ARCHIVES



KENNETH JACOBSEN



TOM KULLIGOWSKI



JAMES OSEEN



CHARLES ROWDEN



AOS AWARD ARCHIVES

passed on to its progeny. The best way to insure spotted progeny is to breed to spotted flowers, but the attributes of high floriferousness, and full flowers do not seem to be dominant when bred to other spotted species and hybrids.

The most highly awarded hybrid is *Cattleya Interglossa* (× *intermedia*). If you look at the gallery of award photos in *OrchidPro*, you can see that some of them were obviously bred to *C. intermedia* var. *aquinii* and produced peloric (splash-petaled flowers). 'Bertsch's Variety' AM/AOS is the only awarded flower that has the full form that you would hope for, but alas no real spots. Some of these do have slight spotting, but not nearly as spotted as *C. amethystoglossa*.

One photo I found shows interesting spotting and a vivid lip color, but the form might turn some off with segments appearing thin, ruffled and recurved. 'Atlas' BM/DOG from Germany has an

- [81] *C. Little Leopard* 'Equilab' AM/AOS; grower: Jones & Scully.
- [82] *C. Leopard Jewel* 'Celebration' HCC/AOS; grower: Claire and Roger Cole.
- [83] *C. Sandra Spots* 'Pink Spreckles' HCC/AOS; grower: Japheth Ko.
- [84] *C. Orchidom Leopard* 'Sunset Valley Orchids' HCC/AOS; grower: Fred Clarke.
- [85] *C. Sandra Spots* 'Little James Krull' HCC/AOS; grower: Krull-Smith.
- [86] *C. Monte Elegante* 'New Port' AM/AOS; grower: Robert J. Richter.



amount of spotting extraordinary for this cross and it makes me suspect that something other than *C. amethystoglossa* was used, or that a possibly spotted *C. intermedia* was used. The two most recent awards do show more spotting: 'Exotic Orchids' AM/AOS shows decent spots on the petals, and 'St. John's Bluff' HCC/AOS displays a cluster of bouquet-like flowers with spotted sepals and peloric petals.

*Cattleya* Tomonori 'Puanani' AM/AOS is a cross of *C. Hawaiian Variable* and *C. amethystoglossa*. In this case, *C. amethystoglossa* showed itself in the coloring and floriferousness with over 12 flowers per inflorescence earning it an upgrade in 2007 from its original HCC in 2002 with only six flowers. It also displays the tall inflorescences of *C. amethystoglossa*.

Another hybrid with AOS quality awards is *Cattleya* Pink Elephants (*amethystoglossa* × *Brabantiae*). What surprised me about this cross are the narrow segments. I would have expected a fuller flower from the *C. amethystoglossa* or *C. loddigesii*, but it appears that the *C. aelandiae* form dominated.

*Cattleya* Pink Elephants was bred to *Rhyncholaeliocattleya* Island Charm (Donna Kimura × *C. intermedia*), a full splash-petaled flower, creating *Rhyncholaeliocattleya* Village Chief Pink 'C.S.' TRO/TOGA. It is a striking flower that combines the peloric petals from *C. intermedia* with the distinct spotting from *C. amethystoglossa*. I find the combination is a sure-fire hit. The crisp background color is beautifully accented by evenly distributed spots and splashes and the form of the petals and lips are full and the sepals are equally distributed between them. Very pleasing indeed.

An interesting hybrid that breaks away from the typical cream and pink coloring is *Cattleya* Loddiglossa (*amethystoglossa* × *loddigesii*). When the coerulea forms of each species are used, a green base with lavender markings is produced verging on and including blue forms. There were minute amethyst spots on the sepals and a blue-lavender cast to the flowers of 'Carolina Blue' HCC/AOS. This clone has 11 evenly spaced flowers on an upright inflorescence. The form is slightly slender, but is a good starting point for this color line. The two most recent awards are the standard color form: 'Szygy' AM/AOS has a good amount of small spots throughout, but the segments are oddly slender, making me wonder what happened; 'Darlene' AM/AOS shows the flower form that you would expect, but the spotting is

literally marginal.

Fred Clarke combined the blue color form of *C. Loddiglossa* with a coerulea form of *C. tigrina* (syn. *Cattleya leopoldii*) to make *Cattleya* Leoloddiglossa. 'Valley Isle' HCC/AOS and 'Exotic Orchids' AM/AOS are two of the awarded plants that show this variation of color, while also showing the greater floriferousness and pleasing arrangement that the *C. amethystoglossa* and *C. tigrina* in the pedigrees supply. Two newer cultivars include 'Cicely' AM/AOS, which had 16 barely speckled flowers on one inflorescence, and 'Hot Tuna' AM/AOS, which had 36 more heavily spotted flowers on two inflorescences for an average of 18 flowers per inflorescence. In 2016, Fred Clark presented a cultivar with "twenty-one very well formed coerulean flowers nicely presented on one strong, erect inflorescence; sepals and petals clear coerulea-cream, spotted dark purple-coerulea distally," the natural spread was 4.25 inches (10.8 cm) by 4.88 inches (12.4 cm). 'SVO Speckled Blue' with a beautifully arranged head of flowers rightfully earned a 90 point FCC/AOS! An outlier to this group of awards is 'Exotic's Leopard' AM/AOS (89 points) awarded in 2017. Instead of the pale coerulea forms mentioned previously, the 39 flowers are described as light olive green with a lavender overlay, lavender spots apically and a dark lavender lip. Although the spotting is sparse, the spots are there and it is a unique color.

*Cattleya* Mandu (Coquina × *amethystoglossa*) has earned three AOS awards, all to 'Cheryl Lynn' HCC/CCM/CCE/AOS and all awarded to Alan Koch of Gold Country Orchids. It did breed spots and Koch used it in hybridization. You can see from the CCM photo that the sheer height of the plant precludes it from becoming too popular as the breeding trend is toward smaller plants with larger flowers. Another awarded, primary hybrid is *Cattleya* Little Leopard 'Equilab' AM/AOS (*aelandiae* × *amethystoglossa*). Though it only has this one AOS award, it has 21 progeny. Three have earned AOS Awards and two an AOC award.

*Cattleya* Leopard Jewel (Little Leopard × Purple Gloss), 'Celebration' HCC/AOS shows a cupped flower, but one that is quite colorful and seems to have gotten the spotting from both *C. aelandiae* and *C. amethystoglossa*. The lip is flat, full and colorful. The award photo shows spotting bleeding through from the reverse side, which is distracting.

*Cattleya* Orchidom Leopard 'Sunset Valley Orchids' HCC/AOS is a cross of

*C. Leopard Jewel* and *C. Brabantiae*. It inherited pleasing coloration along with good, full form albeit on fairly cupped flowers. This flower only scored 75 points and I suspect it is due to having just four flowers, as I find the color and form quite lovely other than the cupping. In 2016, Fred Clarke registered the cross of *C. Orchidom Leopard* with *C. Mark Jones* as *Cattleya* Sandra Spots. There are four awards to this newer hybrid. Two of them, 'Pink Sprinkles' HCC/AOS and 'Rachel' AM/AOS have the lavender base color with darker spots. The other two 'Arnie' HCC/AOS and 'Little James Krull' HCC/AOS have the olive green base with burgundy markings and a fuchsia lip. The majority of them have full sepals and petals with distinct spotting, good arrangement, and a flower size of 3.5–3.9 inches (9–10 cm).

Jim McCubbin in Australia combined *Cattleya* Doris Schindel (*guttata* × *amethystoglossa*) with *C. Little Leopard* to create *Cattleya* Highland Spots 'Marie' HCC/AOC in which the *C. guttata* and *C. aelandiae* have helped stabilize the spotting, while the *amethystoglossa* has provided the clustering of full-formed flowers, nicely arranged on tall inflorescences. The flowers do have a bright pink blush that appears to randomly appear on the sepals and petals, and while some might find this distracting, I find it an interesting feature as it complements the bold coloring of the lip. *Cattleya* Highland Spots was then bred to *Cattleya* Mari Reyes [Penny Kuroda (Sophia Martin group) × Wailea] to produce *Cattleya* Jungle Queen and, although not awarded by the AOS, it is producing some interesting awarded spotted flowers in Australia. Two cultivars, 'Glenlee' HCC/AOC with 13 flowers and 'Southern Cross' AM/AOC with 22 flowers, both have good color and distinct bold spotting, a nod to *C. amethystoglossa*.

Another interesting hybrid that combines the best of the spotted *Cattleya* species is *Cattleya* Monte Elegante 'Sin Pu' TRO/TOGA (Sophia Martin × *Interglossa*), where the coloring and peloricism of *C. Penny Kuroda* (Sophia Martin group) is combined with the tall, clustered inflorescence of *C. Interglossa* creating a natural bouquet!

So what have we learned about *C. amethystoglossa* and its hybrids?

As a species:

- You should expect close to 12 flowers per inflorescence.
- 3.3 to 3.9-inches (8.5–10-cm) wide natural spread.
- Strong upright inflorescences with







pleasing arrangement.

- Full, almost round petals, and fuller sepals allowing little fenestration.
- Vividly colored lip midlobe, and an interior of side lobes that flare out apically.

- Firm substance and waxy texture.

Plant habit (expected for cultural awards):

- Tall, upright growths.
- Long, upright inflorescences.
- 12+ flowers per inflorescence.
- Nicely clustered flowers with pleasing circular arrangement.

In hybrids:

- Increased floriferousness.
- Fuller flowers.
- Clear and distinct spotting.
- Taller and stronger inflorescences.
- Nice arrangement.

*Cattleya guttata/leopoldii/tigrina*

These three names are linked by much confusion. Although thought to be separate species and then variations of each other, Kew has determined that they are two species, *C. guttata* and *C. tigrina*. *Cattleya leopoldii*, once thought to be a variety of *C. guttata*, is now considered to be the separate species *C. tigrina*. The awards appear all lumped together, which is probably for the best, since they have been intermingled. Many present-day examples of the species are really a blending of the two species. In keeping with this, I will follow suit and keep them together as a group.

*Cattleya guttata* is found in coastal Brazil from Guarapari in Espirito Santo to Paranagua in Parana. It is found on the horizontal branches of trees that overhang the rivers and streams, usually among the vines that encase the limbs and frequently infested by ants. They are the tallest of all cattleyas, sometimes reaching over 4 feet (1.22 m) and they have two or more, often three, narrowly elliptic leaves. They bloom from dry sheaths in August or September. The flowers are smaller than *C. tigrina* and the side lobes of the lip conceal the white column. The flowers are described as having a green background with red-brown markings. The lateral sepals are falcate giving a bow-legged appearance and the petals have slightly undulate margins. The trilobed lip has a reniform (kidney-shaped) midlobe and side lobes tightly wrap the column hiding it from view. Mature plants often have three leaves per pseudobulb (Allikas pers. comm.).

*Cattleya tigrina* is found in Brazil from Rio de Janeiro southward to Paranagua. It originally was found near Uruguay, but these southernmost plants have been



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destroyed. They grow in the tops of trees in dense, swampy forests. The plants are not as tall as *C. guttata*. They bloom from green sheaths in May or June shortly after the new growths mature. The lateral sepals are broader than *C. guttata* and petals are broader at tips and may be reflexed and margins can be undulate. The trilobed lip has a broadly reniform midlobe and the side lobes do not clasp the column, the column is visible when viewed in profile, and the looseness of the side lobes creates broad sinuses. Plants are tall, but more robust than *C. guttata*, and only have two leaves per inflorescence (Allikas pers. comm.). The flowers are described as dark tan brown to dark mahogany with

[87] *C. tigrina*; inset photograph: *C. guttata*.

These two species are superficially very similar and differ only in the extent to which the side lobes cover the column, whether the sheath is green or dried at flowering and time of the year. Photographs by Greg Allikas.

[88] *C. guttata* 'Brecko Leopard' CCE/AOS; grower: Keith Davis. Plants of either species make magnificent specimens.

burgundy spots.

By looking at the AOS awarded photos, can we come to any real conclusions about these two often-confused species and how they have been awarded in the



past? One of the earliest awards with a clear photo was granted to *C. guttata* var. *leopoldii* 'Sopressa' AM/AOS in 1967. This species is now known as *C. tigrina*, and you can clearly see the column, thereby proving that it is indeed *C. tigrina*. No other information or measurements were given.

I am leaving the original name of *C. guttata* var. *alba* 'Fields' HCC/AOS for this species as most people know it by this name (and it has been extensively used in hybridization under this name). Many believe that it is actually *C. tigrina* f. *alba* because you can clearly see the column, the green sheath and a wide midlobe in the award photo. This cultivar has completely muddled up the hybridization records.

Like many others of the time, this next award was granted as a *C. leopoldii*, which now makes it *C. tigrina* 'Brazos' HCC/AOS. The award description notes that this clone has better than average spacing on the inflorescence, though it does appear that the 13 flowers are somewhat crowded to me. The flowers show good saturation of mahogany coloring with darker mahogany spots and the lip is brilliant purple. The natural spread is 3.1 inch (8.0 cm), which is in keeping with the species.

*Cattleya leopoldii* 'Ghirardelli' HCC/AOS normally should correctly read *C. tigrina*; however, since you can clearly see a dried sheath, the side lobes cover the column, the lateral sepals are falcate, and it was awarded in August, I think it is safe to say that it is actually *C. guttata*. This plant had 38 flowers in a tight cluster atop a 5.6-foot (1.7-m) tall plant. The flowers were 2.9 by 3.4 inches (7.3 cm x 8.6 cm). The form is slightly lacking in the narrow width of the segments, but the color is good and the spots well-defined, the size is acceptable, the substance and texture are firm and waxy as expected and the floriferousness is through the roof. I should mention that often these linebred species are mistakenly combinations of both *C. guttata* and *C. tigrina*, so that could account for the floriferousness.

Conversely, the award to *C. guttata* 'Mint Julip' HCC/AOS is listed as a linebred cross between two *C. guttata* parents (which is understandable since originally they were both listed under the name *C. guttata* and *C. guttata* var. *leopoldii*). When you look at the blooming time of May 1999, the fact that the sheath is green, the column is not covered and that it has defined sinuses and a broad lip, I would suspect that this is in all likelihood



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RHONDA PETERS



FRANCISCO MIRANDA

*C. tigrina* (Miranda pers. comm.). The 13 flowers are moss green with mahogany spots and a white lip.

*Cattleya tigrina* var. *vinicolor* received a CHM for unusual color and unspotted flowers. There were 12 flowers on this plant. My guess is that due to the narrow segments, the team opted to award it based on its coloring rather than considering it for a quality award, or perhaps it is the practice of that judging center that the first award to the variety should be one of horticultural merit, rather than granting a quality award right out of the gate.

*Cattleya leopoldii* var. *coerulea* 'Kathleen' JC/AOS was awarded a Judges Commendation for the blue lip color. The low flower count of seven flowers and the reflexed lip are probably what



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EDWIN BOVETT



RHONDA PETERS



MICKEY PARKER

- [89] Awarded as *C. guttata* var. *alba* 'Emerald' HCC/AOS; grower: Ron Midgett.
- [90] Awarded as *C. guttata* var. *alba* 'Fields' HCC/AOS; grower: Fred A. Stewart, Inc.
- [91] Awarded as *C. guttata* 'Mint Julip' HCC/AOS; grower: Fred Missbach. This is one of the numerous caerulean color forms of the species.
- [92] *C. tigrina* var. *caerulea* 'Kathleen' JC/AOS; grower: William Rogerson. These color forms have bright green sepals and petals and blue lips of varying intensity.
- [93] *C. tigrina* (Vinicolor) 'Kathleen' CHM/AOS; grower: William Rogerson. Although called var. *vinicolor*, this name is a horticultural name rather than a distinct taxonomic variety.
- [94] *C. tigrina* 'Joinville' HCC/AOS; grower: Gilberto DeSilva.
- [95] Awarded as *C. tigrina* (Alba) 'Fightin' Tigers' HCC/AOS, this is certainly different from the green and white cultivars usually seen with this name. Grown by Al Taylor.



kept this from getting a quality award. However, it is good to keep in mind that newly discovered color forms often come from a smaller pool of available plants for hybridizing and, therefore, should not be expected to have the same fullness, flatness and size as the more prevalent color forms.

*Cattleya tigrina* 'Sunset Valley Orchids' AM/AOS, when awarded in 2007, had 42 flowers on one inflorescence on a 24.4 inch (62 cm) inflorescence. The award description had a special note that the cultivar was superbly shaped although the form appears poor in the award photo. The color appears light and rather dull. The floriferousness is remarkable, and the lip is pleasantly colored and relatively flat, but the overall form in the photograph is lackluster. Critiquing from a photograph is not always a fair evaluation, as the angle could be slightly off making the petals appear to be held forward and slightly downward, and the color balance and contrast might be off. I have occasionally gone back to look at a flower award that my team has given, only to be disappointed with features that show up in the photograph that were not seen in the light of day, so we should take all critiques with a grain of salt.

*Cattleya tigrina* (awarded as *leopoldii*) 'Michael' AM/AOS shows an example of the classic *C. tigrina* side lobes that have a 45° angle cut back exposing the column. This is one of the highest-scored flowers and, rightfully so, as there were 26 flowers on one 13.1-inch (33.3-cm) inflorescence. The flowers are larger at 4.1 inch (10.3 cm) natural spread. The color is rich, markings distinct and the form is typical and has no major issues, and the lip is quite flat.

*Cattleya guttata* 'Brecko Leopard' AM/AOS had 41 flowers on two strong, erect inflorescences. The sepals and petals are olive green with heavy red-brown markings. The lip is bright fuchsia and shaped like a typical *C. guttata* in that it is about the same width as the column. I think the color of this clone must have knocked the judges' socks off, as it is the darkest *C. guttata* presently awarded in the AOS system. If you look closely, you can see the dry sheath at the bottom of the award photo. This flower was awarded in September and the side lobes completely and bluntly cover the column, all signs that it truly is a *C. guttata*. Jack and Margie Kepley were granted a CCM in 2007 with 44 flowers on two erect inflorescences on a plant 51 inches (13 cm) tall, and Keith Davis received a CCE with 112 flowers on five inflorescences



CARMEN JOHNSTON



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ARNOLD GUM

98



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IRMA SALDAÑA



100

on an immaculate plant 4.4-foot (1.35-m) wide by 57-inch (145-cm) plant grown in a 15-inch (38-cm) clay pot.

*Cattleya tigrina* 'Joinville' HCC/AOS exhibits something I want to see in this species. The segments are full with little fenestration, with widespread lateral sepals and an extremely flat lip. The color is bold with distinct spots and a vivid contrasting magenta lip. The inflorescence is upright and the flowers are nicely spaced. The natural spread is 3.5 inches (8.8 cm), which is well within the range expected. The only real deficiency that I can see is the lack of flowers in that there are only 10 flowers on one inflorescence (I would note that this could be a tetraploid or polyploid, which might account for the fullness and reduction in flower count). I would have scored this flower much higher; it would rank in the high AM category for me. I think it has the best form of all the awarded clones and that would have pushed the point value up for me.

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- [96] *C. Penny Kuroda* (Penny Kuroda Group) 'Spots' HCC/AOS; grower: Dr. and Mrs. W.W. Wilson.
- [97] *C. Penny Kuroda* (Sophia Martin Group) 'J&T' AM/AOS; grower: Tomy Edwards.
- [98] *C. Penny Kuroda* (Caudebec Group) 'Carmela' AM/AOS; grower: William A. Baker.
- [99] *C. Penny Kuroda* (Caudebec Group) 'Orchid Eros' HCC/AOS; grower: Ben Oliveros, Orchid Eros.
- [100] *C. Penny Kuroda* (Francisco Sueiro Group) 'Bielecki's' HCC/AOS; grower: Thad Bielecki.
- [101] *C. Ruth Lenney* 'Manoa' HCC/AOS; grower: James F. Lenney.



'Panther Creek' HCC/AOS had 11 flowers, but what it lacked in floriferousness it more than made up for it in superb color patterning. The olive flowers are boldly marked maroon and show great bilateral symmetry. Looking at 'Summer Voodoo' HCC/AOS reminds me of looking at the face of a freckled child, the spotting is uniform throughout.

Most recently William Rogerson and Ben Oliveros have changed the landscape of this species. 'Kathleen II' was granted an HCC/AOS in 2016, which was upgraded to an AM/AOS in 2017, while the flowers were a bit smaller, there were more of them, the color had deeper saturation and the lip was more vibrant. 2017 was an exceptionally good year for Ben Oliveros of Orchid Eros. Imagine if you will "Twenty-three illustrious, tightly clustered flowers on a single staked inflorescence; sepals and petals rich chocolate brown, irregularly spotted dark chocolate brown; spots coalesced on distal third of petals; lip deep magenta, side lobes lighter magenta; column lighter magenta, anther cap yellow; substance heavy; texture glossy, column and lip matte; flowers intensely fragrant; commended for outstanding color and form." A true sight to behold and 'Sebastian Ferrell' FCC/AOS is truly that. Nine days later 'Kingston Mines' AM/AOS was awarded with 16 coerulean-spotted flowers. I happened to be on the judging team two years ago when a most unusual color form was brought to the table. It was entered as *C. tigrina* f. *lilacina*, a color form that is not currently recognized. There were seven light green flowers with muted rose-pink spotting and a flat lip that was rimmed in bright violet-pink. 'Forte Sublime' received an HCC/AOS.

Hybrids of *Cattleya guttata* and *Cattleya tigrina*

For *C. guttata*, *OrchidWiz* shows 256 F1 offspring and 2,952 total progeny. For *C. tigrina*, *OrchidWiz* shows 138 F1 offspring and 2,249 total progeny. As mentioned in the introduction to these species, because they were both technically considered the same species at first and because the awards have been granted with the incorrect names, I feel these hybrids have to be considered together, especially since *C. guttata* (actually *tigrina*) f. *alba* 'Fields' HCC/AOS was used so heavily in hybridizing and was listed as the incorrect species.

In April of 2014, *Orchids* magazine published an article on my research into the true parentage of *C. Penny Kuroda*, titled "*Cattleya Penny Kuroda* By Any



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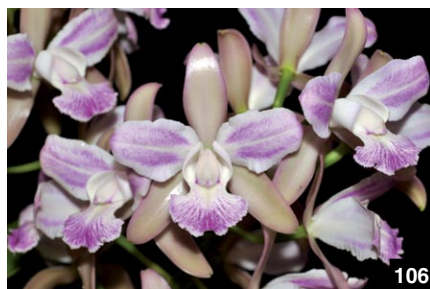
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LARRY VIERHEILIG



PAUL TUSKES

Other Name." In this article, I showed that the original parentage of *C. Penny Kuroda* was incorrect (*C. Summer Snow*, which should have been *C. Summer Stars*) thereby making it the same hybrid cross as *C. Sophia Martin*. Because of this discovery, the International Orchid Register decided that renaming all of the hybrids that were created with either *C. Penny Kuroda*, *C. Sophia Martin*, *C. Caudebec* and *Cattleya Francisco Sueiro* would be a huge headache, so they instead now list all as *C. Penny Kuroda* with a group name in parenthesis: *C. Penny Kuroda* (*Penny Kuroda Group*), *C. Penny Kuroda* (*Sophia Martin Group*), *C. Penny Kuroda* (*Caudebec Group*) and *C. Penny Kuroda* (*Francisco Sueiro Group*).

- [102] *C. Hawaiian Variable* 'Sunset Valley Orchids' HCC/AOS; grower: Fred Clarke.
- [103] *C. Hawaiian Variable* 'Kyleidosplash' HCC/AOS; grower: Kyle Saunders.
- [104] *C. Hawaiian Variable* 'SanBar Summer Carnival' HCC/AOS; grower: Santa Barbara Orchid Estate.
- [105] *C. Hawaiian Variable* 'Summer Splash' AM/AOS; grower: Santa Barbara Orchid Estate.
- [106] *C. San Diego Variable* 'Solana Beach' AM/AOS; grower: William Baker.
- [107] *C. San Diego Variable* 'Point Loma' AM/AOS; grower: Ormistan J. Bromfield.
- [108] *Rlc. Waianae Leopard* 'Ching Hua' HCC/AOS; grower: Jerry Rehfield, Starbek Farms.
- [109] *Rlc. Waianae Leopard* 'Kaupakulua Jaguar' HCC/AOS; grower: George and Maureen Cooper.



Rather than list the drawn-out name with the group affiliation throughout the rest of this article. I will simply state them with their original given names, acknowledging that the proper names are as listed here with the group affiliation included.

*Cattleya* Penny Kuroda and *C. Sophia* Martin (Summer Stars × *guttata*) are both first-generation *C. guttata* offspring and their resulting progeny are similar except for the fact that some of the *C. Penny* Kuroda and their progeny have splash petals. *Cattleya* Penny Kuroda only has two AOS awards to the same clone, 'Spots' an HCC in 1985 and an AM in 1996. Although not highly awarded, it does have 141 F1 offspring and 746 total progeny. *Cattleya* Sophia Martin has four AOS awards, and 'Jodi Lynn' AM/AOS and 'Spots' HCC/AOS both have a unique color pattern where the petals have a section that is suffused with a darker pink. In 'Spots' this is on the proximal half of the petals and 'Jodi Lynn' has it on the petal margins. The more standard-looking cultivar is 'J&T' AM/AOS, and it has overall spotting with wider petals on the 10 flowers 3.7 by 3.9 inches (9.5 × 10 cm).

*Cattleya* Sophia Martin has 13 F1 offspring and 183 total progeny. Since *C. Penny* Kuroda and *C. Sophia* Martin are actually the same cross, that makes their hybrid when bred to each other (*C. Caudebec*) technically a cross of a peloric, splash-petaled *C. Penny* Kuroda and a nonpeloric *C. Penny* Kuroda. In most cases, the *C. Caudebec* cultivars that you see have a higher ploidy (twice as many chromosomes), as they usually have fuller and rounder flowers with significant substance. There are currently 12 awards to *C. Caudebec* and they have between six and 13 flowers per inflorescence. My favorite of these awards is 'Breckenridge Pride' AM/AOS. Although a bit cupped and slightly smaller, the 18 flowers have full form and a nice smattering of amaranth-colored spots.

*Cattleya* Caudebec has 59 F1 offspring and 126 total progeny.

These three hybrids that are really one and the same exemplify some of the best in spotted breeding. *Cattleya guttata* was crossed with *C. Summer Stars* (Henrietta Japhet × *Claesiana*). *Cattleya Claesiana* is a cross between *C. intermedia* and *C. loddigesii* that results in a fuller, rounder flower and, depending on the form of *C. intermedia* used, can have spots or splashes and varying degrees of color on the lip. *Cattleya* Henrietta Japhet gives the large petals and frilliness of a large labiate *Cattleya* in a smaller package. Then you



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JORGE ENRIQUE CESPEDES TRIGUEROS



111

IRMA SALDAÑA



112

JIM TEAR



113

JIM TEAR

cross that with *C. guttata* and what you end up with are a variety of colors and patterning on approximately eight flowers per inflorescence that are an average of 3.4 inches (8.6 cm).

*Cattleya* Sophia Martin hybrids

There are four hybrids of *C. Sophia* Martin that have been awarded that are spotted. *Cattleya* Monte Elegante (Sophia Martin × *Interglossa*) was mentioned previously in the *C. amethystoglossa* section.

*Cattleya* Mari Reyes (Sophia Martin × *Wailea*) is the oldest hybrid. *Cattleya* *Wailea* has *C. guttata* and *C. bicolor* in its background. What stands out to me in 'Paula Marabella' HCC/AOS is the strong, concentrated spots on the sepals and the bright magenta-purple midlobe of the lip. The sepals and petals are presenting in the same plane and are fairly flat.

*Cattleya* Francisco Sueiro (Sophia Martin × *Caudebec*) mentioned earlier has one AOS award to 'Bielecki's' HCC/



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[110] *Rlc.* *Waiana*e Leopard 'Alejandro' AM/AOS; grower: Alejandro Rodriguez Cheung.

[111] *Rlc.* *Sugita* Spots 'Florida SunCoast' AM/AOS; grower: Jim Roberts, Florida SunCoast Orchids.

[112] *Rlc.* *Sugita* Spots 'Bill's Weed' JC/AOS; grower: Bill Nunez.

[113] *Rlc.* *Sugita* Spots 'September Surprise' AM/AOS; grower: Jim Roberts, Florida SunCoast Orchids.

[114] *C.* Sandra Turner 'Mojave' HCC/AOS; grower: Michael Levin.



AOS, which has beautiful spotting and the fullness of petals that you would expect from *C. Caudebec*, right down to the hot-pink feathering along the margins.

*Cattleya* Ruth Lenney is a cross with *C. Doris Schindel* (*guttata* × *amethystoglossa*) The only AOS award is to ‘Manoa’ HCC/AOS as a cut inflorescence with 16, 3.5 inch (9 cm) buff-pink flowers with heavy dark-purple spots, the lip has a purple midlobe and flushed-pink, white side lobes with purple tips. While the form is more open, the sepals and petals are fully punctate (small dots). The judges noted that the form and lack of sheen precluded a higher score.

*Cattleya* Penny Kuroda hybrids

*Cattleya* Penny Kuroda has 10 F1 spotted offspring that have been awarded, not including *C. Caudebec*.

As mentioned in the introduction, there are problems with the breeding lines of *C. Penny Kuroda*. Interestingly *C. Sophia Martin* (which shares the same exact pedigree as *C. Penny Kuroda*) was also bred to *C. guttata* to create *Cattleya* Nitsuga’s Carupano, which has yet to be awarded and I am unable to find a photograph. In both cases, you have the influence of the *C. guttata* in its background twice, along with the splashes, spots and fuller form of *C. intermedia* through *C. Claesiana*. Surprisingly, *C. Hawaiian Variable* has fewer flowers than either parent. One of the awarded clones had 13 flowers so that actually brought the average up to 7.3, but most have between five and eight flowers. What it loses in floriferousness, it makes up for in the spacing and arrangement of the flowers. It exhibits good saturation of color and markings with good fullness, hard substance and waxy texture. It has 11 AOS awards. There are three major color forms that come out of this cross: the spotted pattern like ‘Sunset Valley Orchids’ HCC/AOS, also a form with splash-petal, spotted flowers as in ‘Summer Splash’ AM/AOS where the sepals are finely spotted and the petals are splashed and an alba form with splashed petals like ‘Kyleidosplash’ HCC/AOS that is completely devoid of spots..

*Cattleya* Hawaiian Variable has been bred on to create both splash-petal and/or spotted progeny. My favorite among them is *Cattleya* San Diego Variable (Hawaiian Variable × Autumn Fest; this is the flower that started the whole *C. Penny Kuroda* research as I selected this one for my assignment). In ‘Point Loma’ AM/AOS and even though the petals are short and the sepals long, this hybrid has a whimsical feel about it with the



GREG ALLIKAS  
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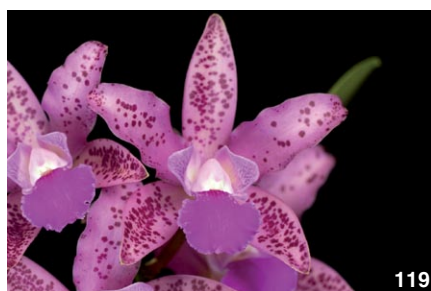
ARNOLD GUM  
116



KARL SIEGLER  
117



JASON R. MILLS  
118



CARMEN JOHNSTON  
119



IRMA SALDANA  
120



ARNOLD GUM  
121



JAY NORRIS  
122

splashes and spots. There are two other progeny that have produced spotted flowers: *Cattleya* Tomonori was already discussed in the *C. amethystoglossa*, and *C. Akimi Haneda* (× *C. Cruzeiro do Sul*, a *C. Brabantiae* offspring) has four Brazilian awards.

*Rhyncholaeliocattleya* Waianae Leopard is a *C. Penny Kuroda* cross with *Rlc. Peach Cobbler* (Waikiki Gold × *C. guttata*). The only photo that I can find of *Rlc. Peach Cobbler* shows a flower

[115] *C. Pink Leopard* ‘Spotsalot’ HCC/AOS; grower: Greg Allikas.

[116] *C. Pink Leopard* ‘John’s Pick’ AM/AOS; grower: William Baker.

[117] *C. Waianae Harlequin* ‘Winfield #1’ HCC/AOS; grower: Max C. Thompson.

[118] *C. Sarah Jessica Parker* ‘Hot Vision’ AM/AOS; grower: Barney and Aileen Garrison.

[119] *C. Lucy Chua* ‘Honey’ HCC/AOS; grower: Yife Tien.

[120] *Ctt. Niña Pintá* ‘Paraiso’ HCC/AOS; grower: Arnaldo Astacio-Diaz.

[121] *C. What’ll It Be* ‘Julian’s Delight’ AM/AOS; grower: Helen R. Pfister.

[122] *C. What’ll It Be* ‘Josee’ HCC/AOS; grower: John Vermeer.



devoid of spots, so the *Rlc.* Waikiki Gold (Pink Surprise × *C. forbesii*) must have been dominant in that original cross, but when bred back to *C. guttata*, the spots abound! There are seven AOS awards to *Rlc.* Waianae Leopard, the first six were HCCs; the seventh, 'Alejandro', finally came through with an AM/AOS. The most widely available cultivar is the mericloned 'Ching Hua' HCC/AOS. You can see the wide petals and fuller sepals, and ruffles on the lip from *Rlc.* Peach Cobbler. This hybrid has an average of seven flowers with an average natural spread of 3.23 inches (8.2 cm). The spotting from *C. guttata* is abundant and distinct. 'Kaupakulua Jaguar' HCC/AOS shows better form and color. It received 78 points, perhaps because it only had two flowers, as I find the form and color exceptional, especially the finely stippled, feathered markings on the petals.

*Rhyncholaeliocattleya* Waianae Leopard has 65 F1 offspring and 119 total progeny. Most of the spotted, awarded progeny have already been mentioned in other sections or will be mentioned later in the Australian section, but one that is truly out of the box is *Rhyntonleya* Sugita Spots (*C. Natalie Clark* × *Haleahi Cubs*). This hybrid combines (*C. Penny Kuroda* × *C. briegei*) with (*Rlc.* Waianae Leopard × *Cattleytonia Joy Bassin*). Although not a standard spotted cattleya, this cross pleasingly shows a smattering of tiny spots, feathered veining and bright lips. They range in size from 2.4–3.2 inches (6–8 cm), with anywhere from four to 19 flowers.

*Cattleya* Lulu is a cross of *C. Penny Kuroda* and *C. Brabantiae*. There are four AOS awards to this hybrid to three different clones. What surprises me about the early awards is the overall narrowness of the sepals and petals in both 'Fireworks' HCC/AOS and 'Grapeade' HCC/AOS. The other thing that surprises me is the lip on 'Grapeade'. I cannot find anything in the lineage that would have provided the round lip! 'Fireworks' had an impressive 17 flowers on one inflorescence. The most current award to 'Hot Pink' AM/AOS shows a fuller flower with excellent color saturation. It had 22 flowers on two inflorescences with hard substance, glossy texture and a pleasant fragrance. What more could a spotted *Cattleya* collector want?

*Cattleya* Lulu has gone on to produce some beautiful spotted flowers. An interesting cross is *C. Sandra Turner* (Lulu × *Landate*). In 2002, 'Mojave' HCC/AOS scored only 76 points, which is shocking



H.A. RUSSELL, III



JASON R. MILLS



TOM KULIGOWSKI



RONNIE KENNEDY



TOM KULIGOWSKI



ARNOLD GUM



JULIE ROTRAMEL

- [123] *Myc.* Erin Courtney's SunCoast 'Soulful' AM/AOS; grower: Jim Roberts, Florida SunCoast Orchids.
- [124] *Myc.* Erin Courtney's SunCoast 'Joyful Heart' AM/AOS; grower: Jim Roberts, Florida SunCoast Orchids.
- [125] *C.* Corrine's Spotted SunCoast 'Rainbow' AM/AOS; grower: Bob and Marion Fallon.
- [126] *C.* Dean's Flair 'Sunset Valley Orchids' AM/AOS; grower: Fred Clarke.
- [127] *Bc.* SunCoast Stargazer 'Verna Bethany' AM/AOS; grower: Jim Roberts, Florida SunCoast Orchids.
- [128] *Rlc.* Wild West 'Maxted' AM/AOS; grower: Catherine Higgins.
- [129] *C.* *Hybrida* (1859) 'Fightin' Tigers' HCC/AOS; grower: Al Taylor.

to me. I find the color captivating and while there is some fenestration, the overall form is pleasing with fuller segments and fairly flat form from the profile angle, and the lip is nicely colored



and shaped. Conversely, the 84-point AM awarded in 2013 to 'Okemos' leaves a lot to be desired. The light olive-green base color with oxblood spotting is striking, yet also suffused and muddy along the margins. There is a mention in the award description that the flowers get a pink blush overlay with maturity that I find highly distracting! The form is equally disturbing as the sepals are all pinched at the apices, and the petals, although wide and full, have an overly defined midrib that is not pleasing. It is hard to tell much about the lip due to the angle of the award photo. Both awards had five flowers.

If you breed *C. Lulu* back to *C. Penny Kuroda* you get *Cattleya* Pink Leopard. 'Spotsalot' HCC/AOS has an increased floriferousness of 11 pink-spotted, amethyst flowers that shows decent form and arrangement with firm substance and crystalline flowers with waxy sepals. My main issue with this hybrid is the midlobe of the lip; although deeply colored magenta, the form is recurved and folded back.

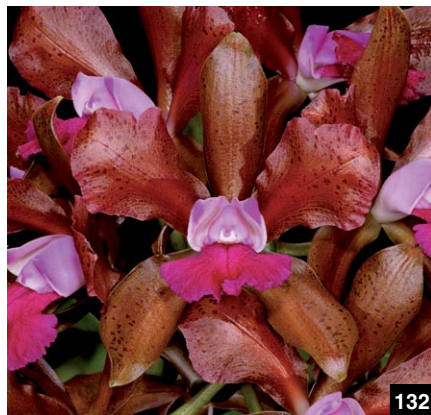
One hybrid that I am not particularly fond of even though it has received an AOS Award is *Cattleya* Waianae Harlequin (*Lulu* × Precious Stones) 'Winfield #1' HCC/AOS. While the form is perfectly acceptable, the spotting pattern is horrendous in my opinion. In my original questionnaire to spotted *Cattleya* growers and hybridizers, the one statement that they all repeated was that the spots should be distinct on a clean saturated background, and this flower misses the mark. In my book, this would be a case of a fatal flaw!

A newer hybrids is *Cattleya* Sarah Jessica Parker (× Diana Rehfield). The flowers are an interesting purple hue with darker purple spotting. There are two awards to the same cultivar 'Hot Vision'. The HCC/AOS seems to have bolder spotting, while the AM/AOS has fuller form and a doubling of the floriferousness as defined by flowers per inflorescence from 11 flowers on two inflorescences to nine on one inflorescence, and an increase of nearly ½ inch (1 cm) vertical spread.

Registered in 2016, *Cattleya* Lucy Chua (× Summerland Girl) also has the pink-maroon color patterning (which is much different than the bronze cast of *Cattleya* Allen Condo — a cross of *C. Summerland Girl* and *C. Mrs. Mahler*). While the form of 'Honey' HCC/AOS is more open, the dense spotting on the sepals, and the slight undulation of the petals lends some character to the flowers. The lip midlobe is almost round and fairly flat, nicely saturated fuchsia with a finely undulate



GLEN BARFIELD



MAURICE MARIETTI



GLEN BARFIELD

margin. There were four 3.5-inch (9-cm) flowers. The size is good as is the color and form, so I suspect the flower count probably kept it below the AM range, and thus received the dreaded 79-point HCC. As an exhibitor, this is often a hard pill to swallow!

When *C. Lulu* was crossed with *Cattlianthe* Fantasía Jíbara (Chocolate Drop × *C. tigrina*), the resulting *Cattlianthe* Niña Pintá 'Paraiso' HCC/AOS does not bring the rich color and saturation that I would have expected from the cross. Although it has an interesting color pattern where the inferior half of the lateral sepals is lightly spotted, the overall effect of the color does not have the "pop" that I yearn for.

If you do an online search for *Cattleya* What'll It Be (Penny Kuroda × Jungle Gem), you can quickly see why the hybrid name fits. The colors and patterns run the



H.A. RUSSELL, III



AOS AWARD ARCHIVES



BAYARD SARADUKE



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TIM MORTON



gamut. There are two awarded cultivars that are quite different in appearance. 'Julian's Delight' AM/AOS shows orange, fairly full sepals and petals, uniformly spotted maroon with a magenta-red overlay on the midlobe, while 'Josee' HCC/AOS shows a much different, peloric flower with yellow sepals that are spotted magenta, and the petals and lip are ruffled and white with purple flares. Both of them show good form and color, and I presume the flower count of three and two flowers respectively kept them from the AM range.

In 2018, Jim Roberts of Florida SunCoast Orchids registered *Myrmecocattleya* Erin Courtney's Suncoast (*Cattleya* Lavender Lulu × *Memoria Louise Fuchs*) giving us a whole new venue for spotted *cattleya* breeding. While 'Soulful' AM/AOS garnered 85 points, it presents a more myrmecophila-type flower with thinner segments, but larger size at 4.7 inches (12 cm). It has subtle spotting on the heavily undulate flowers. 'Joyful Heart' AM/AOS had only three well-arranged, 3.5-inch (8.9-cm) flowers, but the form is definitely a more *cattleya*-like flower and whose petals were over nearly ½ inch (1 cm) wider. Again, floriferousness was probably the disparity in the scoring, as this only received 81 points. It is nice to see that the judges of 'Soulful' appreciated the myrmecophila (like a narrow-petaled *cattleya* on a bad hair day) form, as that seems to be slow in gaining traction at the judging table where, otherwise, typically a fuller form and flatter flower is preferred.

When Jim crossed *Cattleya* Corinne's Spotted SunCoast (*Cattleya* Natalie Clark, a C. Penny Kuroda hybrid) with *Brassavola subulifolia* to get *Rassocattleya* SunCoast Stargazer. He landed on yet another chartreuse brassavola-like flower that was basally chartreuse with the distal half heavily spotted magenta, and the lip is overlaid dark magenta. Again, showing that if you are a fan of spotted flowers, these are right up your alley.

Fred Clarke crossed C. Diana Rehfield (Cinnamon Stick × Shillac) 'Lulu' HCC/AOS that has a classic *C. schilleriana*, bronze-pink, spotted flower to C. Penny Kuroda. The resulting hybrid C. Dean's Flair 'Sunset Valley Orchids' AM/AOS is a white and pink-purple peloric flower with spotted sepals and ovate petals with a purple overlay and with a striking white midline. The margins are undulate mimicking the ruffled purple lip. It remarkably had 28 3.8-inch (9.7-cm) flowers on three inflorescences.

*Cattleya* Caudebec hybrids



FRED RINDLISBACHER

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JIM PYRZYNSKI

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*Cattleya* Caudebec has nine spotted progeny that have garnered awards, both through the AOS and also the Australian Orchid Council (AOC). I have already discussed the merits and progeny of the three hybrids honored by the AOS: *C. Mark Jones* in the *C. aclandiae* section and its use in yellow with red-spotted flowers, *C. Day Tripper* was also discussed in the *C. aclandiae* section, and *C. Francisco Sueiro*. The latest AOS award is to *Rhyncholaeliocattleya* Wild West (× Chinese Bronze). *Rhyncholaeliocattleya* Chinese Bronze is (*C. bicolor* × Chinese Jade), and the latter has *C. guttata* in the background, which should allow some spots to come through. In the original writing of this paper, I left out this hybrid as the only flower photo that I had seen was devoid of spots, but subsequently 'Maxted' was awarded an AM/AOS. It had seven, nearly 4-inch (10-cm) green flowers randomly, heavily spotted with fuchsia with a fuchsia lip midlobe and white cupped side lobes, column and anther cap, with the petals showing a nod to *C. Caudebec* in the ovate sepals that show a slightly less than ½-inch (1-cm) wide fuchsia feathering on the margins. *Cattleya* Caudebec was fairly dominant in the shape and color of the flowers, while the lip harkens back to the *C. bicolor* in its background.

The other two awards were recently awarded under the OSCOV (the Orchid Societies Council of Victoria, in Australia) and the OCNZ (the Orchid Council of New Zealand). *Cattleya* Ern Kettle is a cross of *C. Caudebec* to the diminutive *Cattleya* Beaufort for some outstanding results. The size of the flowers is an average of 2.8 inches (7 cm), which is intermediate



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[130] *C. Mrs. Mahler* 'Orchid Eros' HCC/AOS; grower: Ben Oliveros, Orchids Eros.

[131] *C. Sue Bottom* 'St. Augustine' AM/AOS; grower: Sue Bottom.

[132] *C. Allen Condo* 'Allen Condo' AM/AOS; grower: Joe Grezaffi.

[133] *C. Titus* 'Spotty' HCC/AOS; grower: A.G. Tharp.

[134] *C. Raspberry Smoke* 'Put Me In The Zoo' JC/AOS; grower: Waldor Orchids, Inc.

[135] *C. Tai Rose* 'Leonard's Progeny' AM/AOS; grower: Ben Oliveros, Orchid Eros.

[136] *C. Tai Rose* 'Aloha Maku'u' AM/AOS; grower: Leonard Gines.

[137] *C. Tai Rose* 'Linda's Aloha' HCC/AOS; grower: Gines Orchids.

[138] *C. Maui Leopard* 'Valley Isle' AM/AOS; grower: Michael Blietz.

[139] *C. Gaudii* 'Okiddoc' AM/AOS; grower: Larry Sexton.

[140] *C. Exotic's Plum Leopard* 'Sunset Valley Orchids' HCC/AOS; grower: Fred Clarke.

[141] *C. Gaudii* 'Kathleen' AM/AOS; grower: Alex Nadzan.



between the 2 inches (5.8 cm) of *C. Beaufort* and the 3.6 inches (9.1 cm) of *C. Caudebec*. Unfortunately, the two awards, 'Roaring Leopard' AD/SOCOV and 'Indy' AD/OSCOV only had two flowers each, which could be due to young plants being shown or could be a direct reflection of the two flowers average of *C. Beaufort*. An Award of Distinction is awarded differently in Australia than it is by the AOS. It is more like a Judges Commendation in the AOS in which a cultivar is awarded for a distinctive characteristic such as color or pelorism. The patterning of these flowers is striking and slightly unusual in that the majority of the spots are along the margins of the petals and concentrated on the apices of the sepals.

*Cattleya Spotty* (Bright Angel × *C. Caudebec*) 'Specktackular' AM/OCNZ has similar traits to *C. Ern Kettle*. I find it fascinating that the bright red flowers of *C. Bright Angel* produce yellow flowers with red-purple spots, similar to *C. Ern Kettle*. The fact that both hybrids have only two flowers supports the fact that *Cattleya coccinea* as a grandparent is dominant over flower count and is also quite dominant in the full, round flower shape of the two hybrids.

The only awards to these two crosses are all spotted and those are the only photos that I can find of either cross. It would be easy to presume that most of the flowers are spotted, but given my previous statement about hand-selected cultivars, the only thing that I can say for sure is that they produce some spotted progeny. Neither hybrid has any progeny yet, so it will be interesting to see if the spots breed on.

*Cattleya Jungle Hotspot* (× *Jungle Gem*) has two AOC awards, 'Joy' HCC and 'Olive' AD. Both show bold color patterning and fairly full form.

Aranbeem crossed *C. Caudebec* to *Cattleya Tiny Titan* (*Precious Stones* × *Beaufort*) resulting in *Cattleya Ollies' Folly*. This is another case of breeding a spotted flower to a nonspotted flower that has latent spotting in its background, thereby producing spotted progeny. 'Hot Spots' AD/AOC shows a classic yellow flower with red spots.

Other *Cattleya guttata* hybrids

*Cattleya Hybrid* (1859) (*guttata* × *loddigesii*) is a primary cross that plays on the strengths of both species. *Cattleya guttata* increased floriferousness, added spots (although most are small), gave firm substance, and flattened out the midlobe. *Cattleya loddigesii* provided the pink background color and the white

distal margins of the midlobe, but mostly contributed to the 3.9-inch (10-cm) wide natural spread. Sadly, the fullness and roundness of the segments did not come through from *C. loddigesii*. The only really visibly spotted cultivar is 'Coconut Creek' AM/AOS.

The previously mentioned *C. Mrs. Mahler* (*bicolor* × *guttata*) has six AOS awards. This cross gives qualities that are intermediate between the parents. In most cases, it has the background color and spotting from *C. guttata*, although the spots are fainter. *Cattleya bicolor* has helped with the size and flatness of the petals, but has caused the side lobes of the lip to shrink considerably. The isthmus lip is not as severe as *C. bicolor*, but it does retain the deep v-shaped groove on the midlobe. I find this primary hybrid is an improvement over and a pleasant blending of the two parents. The greatest achievement is the hybrid vigor and increased floriferousness, as this hybrid has an average of 20 flowers compared to the almost seven flowers of *C. bicolor* and the 17 flowers of *C. guttata*. 'Orchid Eros' HCC/AOS, shows a wonderful head of 11 well-spaced flowers on an upright inflorescence. The spotting is bold and saturated and the fuchsia lip really stands out. The size is good at 3.5 inches (9 cm). As for the progeny of this hybrid, I have already discussed the merits of its best hybrid, *C. Fort Motte*, under *C. aclandiae*.

Sometimes when you are judging at a show, flowers just get overlooked and are not nominated for AOS judging. I tend to be a heavy nominator in my center, so I try and wait until the other judges have had a chance to nominate before I write down my extensive list. A few years ago, I did just that and when my turn came, I thought that a plant on my list was already nominated so I did not write it down. When we came close to the end of judging, I remembered it and inquired whether it had been awarded or not... lo and behold, it was never nominated and I asked if it was too late to do so and was told that if there was still a team willing to look at it, we could judge it. So that is how *Cattleya Sue Bottom* (Mrs. Mahler × *Fort Motte*) 'St. Augustine' came to be awarded. The five flat, cardboard-like flowers were 4.3 inches (11 cm) and nicely arranged. The sepals and wavy petals were cream-chartreuse, overlaid rose-pink and spotted dark red-purple, and the lateral sepals are falcate, which is expected given the *C. guttata* on both sides of the background

A hybrid that I almost completely

missed was registered in 1998 by Joe Grezaffi: *Cattleya Allen Condo* (Summerland Girl × Mrs. Mahler). The clone 'The Bob' FCC/AOS is described as a spectacular mix of the copper-bronze of *C. Mrs. Mahler* with the iridescent, enameled plum of the *C. Summerland Girl* parents. Judging and evaluating a flower from photos is difficult. As I have personally witnessed the granting of an FCC that in person was stunning and the photograph of the award fails to show the magnificence of the flower, I hesitate to pass judgment on this one. The first glimpse of this photo does "wow" me with the arrangement and the magnitude of the cluster of flowers, which at 3.9 inches (10 cm) wide each, would have been quite impressive. This cross has received 13 AOS quality awards including three others that were given on the same day as this one. Sadly, most of the awards have only slightly spotted flowers, but what they lack in spotting they more than make up for in presentation and form.

Another interesting primary hybrid is *Cattleya Titus* (*granulosa* × *guttata*) as seen in 'Spotty' HCC/AOS. Unlike *C. Mrs. Mahler*, this *C. guttata* cross was dominant in keeping the full side lobes that conceal the column. There are two AOS awards, one spotted and one not. 'Spotty' shows exceptional color with distinct contrasting spots and a vivid lavender lip that does show the classic striations and white picotee from *C. granulosa*. *Cattleya granulosa* also has increased the natural spread to 4.1 inches (10.5 cm) over the 3.3-inch (8.5-cm) average natural spread of awarded *C. guttata* cultivars.

An older cross that was registered in 1983 that has made a resurgence in the past few years is *Cattleya Maui Plum* (*guttata* × *Summerland Girl*). 'Volcano Queen' AM/AOS originally earned an HCC/AOS (1989) that was upgraded in 2005 to an AM/AOS (85 pts.) when it displayed 22 open flowers and four buds on one inflorescence. *Cattleya Summerland Girl* is a *C. tigrina* cross that has dark and waxy solid-colored flowers much like *C. Precious Stones*, and it likewise suppresses the spotting pattern until bred back to a spotted flower. This hybrid got the best of both parents: increased floriferousness from *C. guttata* (17 flowers per inflorescence) and increased size from *C. Summerland Girl* (awarded flowers average 4.3-inches [11-cm] natural spread). There are some *C. Maui Plum* cultivars where the spots are almost hidden. In 2015, Fred Clarke registered the cross of *C. Allen Condo* and



C. Maui Plum and named it C. Raspberry Smoke. *Cattleya* Tai Rose (Maui Plum × Landate) was registered in 2008 and has three AMs: 'Leonard's Progeny' AM/AOS in 2009, 'Maku'u' AM/AOS in 2011, and 'Aloha Maku'u' in 2016. The first two award photos show similarity in both color and form. Having seen this hybrid in person, the color is richer and not as earthy as it seems in the award photos. 'Aloha Maku'u' has by far the best coloration or rose-gold sepals and petals with mahogany spots throughout and an electric fuchsia lip, and fantastic size at 4.4 inches (11.2 cm). I love that you can see dark mahogany spots on the leaves, as I always try and choose spotted-leaved cattleyas when purchasing unbloomed seedlings! The last award to this grex is 'Linda's Aloha' HCC/AOS, what it lacks in floriferousness and subtle spotting, it more than makes up for in unique red-brown, spotted burgundy-brown sepals and petals and a bright lavender lip. With those colors, you might think it would be a bit muddy or murky, but the photo shows a richness of color that is accentuated by the glossy, crystalline texture. It is also described as having a strong, sweet fragrance, which is always a plus in my book!

The other awarded hybrid is *Cattleya* Maui Leopard (Maui Plum × *aclandiae*) 'Valley Isle' AM/AOS that shows the influences of both parents. The color and form tend to lean toward *C. aclandiae* but with an extra flower, as this award has three flowers. The lip juts like *C. aclandiae* does but carries on the flatness of the lip. Another photo of this hybrid found in *OrchidWiz* shows an open lip, and I rather like the look of the white side lobes edged in magenta. To me, it gives the flower a fuller presentation. I also like the almost taupe background with the rich mahogany spots.

HYBRIDIZATION IN AUSTRALIA I am always on the lookout for new and interesting hybrids. I am active on Facebook and have met many helpful people there. I was fortunate enough to have discovered the Orchid Growers Australia page (<https://www.facebook.com/groups/Orchid.Growers.Australia/files/>), and specifically David Maidment. He put me in touch with Ross Maidment of Aranbeem Orchids, who has graciously shared with me photographs of his hybrids. I was quite taken with his hybrid *Cattleya* Caudebec Candy (Caudebec × Lulu), which has in its background two crosses to C. Penny Kuroda, C. Brabantiae and C. Sophia Martin. There are currently

five awards to this hybrid between the AOS and the AOC (Australia). The AOC award to 'Cooper' HCC/AOC is the darkest of the flowers and has a more typical form to the petals, while 'Katrina' AM/AOS shows more of the peloric-looking petals on the 13 flowers on one inflorescence with a smattering of burgundy spots on a fuchsia-blushed background where the petal margins are devoid of spots and instead appear to mimic the magenta lip.

David Maidment and Aranbeem Orchids use *C. guttata* frequently in their hybridization program. My favorite of his crosses is *Cattleya* Deception Mosaic (Lumita × *guttata*). What I find intriguing about this cross is how much it looks like a *C. aclandiae* hybrid, but with the benefit of having more flowers! I really think they might be on to something that will lead to increased floriferousness in spotted hybridization, while still retaining wonderful depth of color.

He also has crossed C. Lumita (Lulu × Gene May) back to C. Lulu to create *Cattleya* Deception Hotspot. This flower is different from other similarly bred hybrids in the openness and the relative flatness of the lip. The color is pleasing and the cream on the open side lobes of the lip complements the base color of the flower. The lavender on the midlobe with the distinct yellow strip under the column combined with the heavily saturated deeply colored spots present a pretty picture indeed.

*Rhynchoaeliocattleya* Deception Spots (Waianae Leopard × C. Lulu) is another cross Aranbeem has created. Waianae Leopard certainly provides the basic shape (full yet cupped flowers) and coloring (yellow-bronze base color and the yellow on the lip under the column). The floriferousness with four flowers showing on each is close to the 5.3 average of *Rlc*. Waianae Leopard and far from the 10 or more flowers that C. Lulu has. This hybrid brings up a question that is often heard at the judging table. Is this hybrid better than one of its parents? The flowers on their own are striking, but they are clustered and cupped. The floriferousness is certainly lacking with C. Lulu as a parent, yet the form is much fuller than C. Lulu. The lip, although showing some ruffles, is nicely presented and has good color. The arrangement is a bit crowded, yet still fairly pleasing and not distracting, as the flowers are oriented in the same direction.

*Cattleya tigrina* hybrids

One of the rare spotted *C. tigrina* progeny is *Cattleya* Leopard (*tigrina* ×

Harold). *Cattleya* Harold is (*gaskelliana* × *warszewiczii*). You can see the influence of both parents in this cross. The *C. tigrina* was dominant for the spotting, the basic flower shape and flatness of the lip. The soft lavender and yellow lip color and the fullness of the segments come from C. Howard.

*Cattleya* Exotic's Plum Leopard (Fort Motte × *tigrina*) 'Sunset Valley Orchids' HCC/AOS is less impressive than I thought it would be from looking at the parents. I think the magenta flush on the flowers is muddying the color palette. The overall shape seems to pull heavily from *C. tigrina*. The form is fenestrated, which I would expect given the two parents. The lip is flat and well presented, and the overall flatness of the flowers is a welcome benefit.

A different flowering shows less fenestration, with equally good flatness, and in the natural light the flower color brightens and does not seem as dull and muddy.

*Cattlianthe* Fantasia Jibara (Chocolate Drop × *C. tigrina*) is another case of *Ctt*. Chocolate Drop suppressing the spots itself, yet when bred back to *C. tigrina*, it freely gives the spots. *Guarianthe aurantiaca* in the background seems to be dominant over the spotting in the first generation only. This hybrid has not yet been awarded, but given the orange and pink tones with the waxy surface, it seems a hit to me. This hybrid looks like what you might have thought you would get when you cross *Gur. aurantiaca* and *C. guttata*, instead of the deep, richly colored flowers of *Ctt*. Chocolate Drop that were actually produced.

There are three awarded *Cattleya* Gaudii (*Iodigessii* × *tigrina*) cultivars. Two of which have minute spotting. 'Orkiddoc' AM/AOS is magenta with small, slightly darker magenta spots on sepals and petals, on only five 3.9-inch (9.8-cm) flowers and 'Kathleen' AM/AOS is a blue-purple, which is only barely stippled on the distal portion of the sepals and petals, but there are 10 4.2-inch (10.6-cm) flowers on an inflorescence.

*Cattleya guttata* and *tigrina* conclusions:

- Distinct, contrasting spots on a clear, richly colored background.
- Upright growths, with strong upright inflorescences.
- Firm substance and glossy or waxy texture.
- Slightly clustered flowers.
- 3.3- to 3.7-inch (8.5–9.5-cm) wide natural spread.



- Three to 10 or more flowers in hybrids.
- Good width of segments with understanding of falcate sepals and undulated petals.

#### *Cattleya schilleriana*

*Cattleya schilleriana* is found in northeast Brazil in Espirito Santo where it grows in trees and on rock walls near springs and waterfalls that provide the necessary humidity. The typical color form is deep mahogany with blood-red spots and a white lip with deep lavender veins. The World Checklist of Selected Plant Families lists three other varieties. They are *amaliana* (warm brown with few slightly darker spots with deep rose veining and a prominent yellow disk on the lip), *concolor* (unspotted, deep brown-purple, with no veining on the red-purple lip with its white picotee) and *regnellii* (also referred to in literature as *lowii*; lip veined lavender-blue-coerulea).

There are currently 126 AOS awards to this species. At the original writing of this paper, two of the highest quality awards were 'Alberto Besile #01' AM/AOS and 'Isac' AM/AOS and they both scored 87 points. You can see the differences in their markings and the shape of the lip. I prefer 'Isac' AM/AOS, the paler olive-green base color with dark maroon spots along with the flat, evenly veined lip making it a standout to me, even though it only has two flowers. 'Alberto Besile #01' AM/AOS has the more traditional mahogany, blushed-pink color and has seven clustered flowers, but with a recurved lip. But in the past two years there have been four FCCs awarded. Interestingly, there are negligible differences in both flower count and size, but what I do notice is that they all seem to have a flatter and somewhat wider lip, so for this species I would say that the lip is a driving factor. 'Isac' FCC/AOS that was one of my earlier favorites, is even more impressive with the FCC award, although the lip is not large, it is very round and the sepal and petal base color is lighter, but that really shows off the spotting and the contrasting dark lip color. Of the other three FCCs, 'Palmares' has the best flabellate (fan-shaped) lip; 'Franklin' has the highest score, is quite large at 4.6 inches (11.7 cm) and had six flowers, and 'Alejandro Rodríguez Cheung' has wonderful bronze coloring and the largest size at 4.7 inches (12 cm) with nine flowers on two inflorescences.

In 2011 a coerulea form, 'Blue Eagle' AM/AO, was described as olive with periwinkle markings and a lip that was distinctly white with a bright-yellow

center and periwinkle veining. The sepals and petals appear thin due to the recurved and ruffled margins, but I find the overall effect quite pleasing. More recently (2017), 'Maui Skies' AM/AOS shows fuller segments with a greener background, which highlights the maroon spots and coerulea venation on the lip. The coerulean flowers do seem to have a slightly smaller flower 4.3 inches (10.8 cm) and fewer of them with an average of four.

An award that I feel adequately shows the difference in award quality is 'Hannah Jane' HCC/AOS (78, 2010). I find the form of the sepals and petals poor, as they are recurved and twisted. The redeeming qualities are the lip shape and color. It only had two flowers that are described as recurved and reflexed with irregular blotching. The lip is impressive and that is the focal point of this species. The clone 'Memoria Marie A. Kollmer' AM/AOS shows wonderful arrangement with 11 flowers symmetrically placed. The flowers are colorful, especially the lavender-striated column that matched the midlobe of the lip. 'Oseias' AM/AOS beautifully shows the heavy substance and waxy texture that is expected of this species. 'Harford' HCC/AOS had a cupped dorsal, sepals and petals, which are recurved and then reflexed. The lip was far from flat and actually curls up along the margin. It had weak color, which was muddled, and the spots bleed through from the back. There were only two flowers but they were of good size 4.2 by 4.8 inches (10.6 × 12.2 cm).

#### *Cattleya schilleriana* Hybrids

There are 123 F1 offspring and 5474 total progeny. The most highly awarded hybrid is *C. Peckaviensis* that was discussed under *C. aclandiae*.

*Cattleya Resplendens* is (*granulosa* × *schilleriana*). The cultivar 'Plum Duff' HCC/AOS shows more of the *C. schilleriana* var. *concolor* color form with its dark lip with a thin white picotee, the darker background color and spotting, while 'Mike's Surprise' AM/AOS was a slightly larger flower, but the segments are much thinner and the flowers look severely fenestrated.

In *Cattleya* Martin Wolfe (*Memoria William Wolfe* × *schilleriana*), in the cultivar 'Florida SunCoast' AM/AOS, *C. schilleriana* shows itself in this hybrid from the shape and color of the entire lip, to the more spatulate dorsal sepal and petals. Even the coloring resembles the lighter-colored varieties of *C. schilleriana* along with the smaller, more defined circular spots. 'June Dog' AM/AOS has a

full smattering of light cordovan spots on a light green base color, and though the sepal and petal margins are not as wavy or recurved, it seems to have symmetry issues. Also, the lip side lobes present a v-shaped gap that I personally find distracting

Another primary hybrid is *Cattleya Mareeba Tiger* (*tigrina* × *schilleriana*). The first three awards to this hybrid from 2009–2011 are all from the same exhibitor. They all show a good mix of the two species that created a true blending of characteristics. The color is striking, yet the petals show muddled coloring. Interestingly, the lip shows a combination of both parents with a broad lip with a picotee from *C. schilleriana* that is recurved and has flared side lobes from *C. tigrina*. The flower count ranged from three to 10 flowers. This hybrid does show an increase in flower size of 3.5 to 4.1 inches (9–10.5 cm) from *C. schilleriana*. After a six-year gap, a new bevy of this hybrid came along and earned nine more awards. This latest crop of flowers seems richer in color. The 'Crystelle' AM/AOS flowers show the best spotting, mainly due to the slightly lighter background color which enables you to actually see the distinct spotting, where most of the other cultivars are more subtly in their diffused dark spots on a dark background. Orchid Eros presented two extraordinary cultivars that reset the flower count expectancy, 'Kylo Ren' AM/AOS had 11 flowers that are very nicely presented on one inflorescence, and 'Darth Sidius' AM/AOS, the highest scorer with 85 points, which topped the charts with 13 large 5-inch (12.8-cm) flowers on a single inflorescence.

Surprisingly, even when *C. schilleriana* is bred to the deep-colored *Cattleya* Wine Festival to create *C. Mishima Luster*, some of the progeny had spots. This award photo of the cultivar 'Jean' FCC/AOS shows much more spotting than you can see in some award photos, possibly due to the natural light, as the firm substance and waxy texture cause the flash on the camera to make the spots disappear in the glare when it hits the high gloss. The lavender-colored, closed-over-the-column side lobes and the picotee on the lip are other attributes from *C. schilleriana*.

Much like the coerulea forms of *C. aclandiae* that have been used to produce blue-spotted flowers; likewise, the coerulea forms of *C. schilleriana* when bred to *C. loddigesii*, also produce coerulea-spotted flowers (especially if the spotted form of *C. loddigesii* is used) as in *Cattleya Pittiae* (1886) 'JFS' HCC/AOS





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- [142] *C. schilleriana* 'Isac' FCC/AOS; grower: Erick Arce; photographer: Jorge Enrique Céspedes Trigueros.
- [143] *C. schilleriana* 'Alberto Besile "#01"' AM/AOS; grower and photographer: Marcia S. Morimoto.
- [144] *C. schilleriana* 'Palmares' FCC/AOS; grower: Alejandro Rodriguez Cheung; photographer: Jorge Enrique Céspedes Trigueros.
- [145] *C. schilleriana* 'Alejandro Rodriguez Cheung' FCC/AOS; grower: Alejandro Rodriguez Cheung; photographer: Jorge Enrique Céspedes Trigueros.
- [146] *C. schilleriana* (Coerulea) 'Mauí Seas' AM/AOS; grower: Exotic Orchids of Maui, Inc.; photographer: Michael Blietz.
- [147] *C. schilleriana* (Coerulea) 'Blue Eagle' AM/AOS; grower: Keith Davis; photographer: James Harris
- [148] *C. schilleriana* 'Memoria Marie A. Kollmer' AM/AOS; grower: Bill Kollmer; photographer: Maurice Marietti.



has the best and most distinct spotting and 'Paraiso' AM/AOS has the widest and flattest lip, along with nicely placed segments, 'Whisper Something Sexy' AM/AOS has the broadest segments with nicely placed segments but a slightly reflexed lip, 'Whisper Why So Blue' HCC/AOS has the largest flowers and just a smattering of spots on the distal section of the sepals, but the lip is a bit flatter.

The goal is to get the form of *C. loddigesii* and the blue coloration and spotting from *C. schilleriana*. With this primary cross you seem to get heavier spotting on the *C. schilleriana*-type flowers, and few spots but flat flowers with wider segments on the *C. loddigesii*-type flowers. *Cattleya* Kerchoveana (*schofieldiana* × *schilleriana*) only has one awarded cultivar, which is surprising given that it is possibly the most heavily spotted of all the progeny. 'Sparky' AM/AOS had three 4.5-inch (11- × 12-cm) flowers on one inflorescence, and though the sepals and petals are a bit thin, the mahogany spots cover the entire surface, which is complemented by the dark purple overlay and markings on the lip! When you cross *C. schilleriana* to *C. forbesii*, which creates *C. Memoria* Frank McNally, surprisingly you get spotted flowers. Two cultivars have received AOS awards, 'Dumas R.F.' HCC/AOS has the fuller segments and flatter lip from *C. forbesii* and the four flowers are a bit smaller at 4 inches (10.4 cm); and the sepals and petals are listed as brown-pink with burgundy and dark pink spots with a hot pink lip set off with a central hot yellow stripe. 'Easy Does It' AM/AOS has five larger flowers at 4.5 inches (11.5 cm) with flowers that heavily resemble *C. schilleriana* in overall thinner shape, undulation of sepal and petal margins and fuchsia and yellow markings on the midlobe. The only place where you can see *C. forbesii* in this cultivar are the broad side lobes that are completely covering the column. *Cattleya* Memoria Mack Miller (× *Peckaviensis*) has two AOS awards and the photos look so similar that it is really hard to tell them apart. Both 'Jessica' AM/AOS and 'Susana' AM/AOS are heavily ruffled, blotched cordovan flowers with rose-lavender lips, but there is quite a difference in size. 'Jessica' had five 3.5-inch (8.9-cm) flowers and 'Susana' had two 4.7-inch (12-cm) flowers. On the AOS judges' score sheet both size and floriferousness count 10 points, but size always seems to win out as 'Jessica' scored two points higher, hence, why you sometimes will hear the judges say "size is only 10 points, but it's



JASON ONG



ERNEST WALTERS



GREG ALLIKAS



ROBERT SHAINLING



JIM TEAR



WES NEWTON



GLEN BARFIELD

the first 10 points!"

Often times when you breed a cattleya to a brassavola cross, you will get little of the cattleya showing itself, but when *C. schilleriana* was crossed to *Brassocattleya* Yellow Bird (*B. nodosa* × Richard Mueller), you get *Brassocattleya* Felipe Haje. There is one Brazilian award that shows a brassavola-shaped flower with narrow but linearly spotted sepals and petals, that has a broad *schilleriana*-type lip with the classic pink stripes and a bright yellow central mark.

- [149] *C. Resplendens* 'Plum Duff' HCC/AOS; grower: Dick and Carol Doran.
- [150] *C. Resplendens* 'Mike's Surprise' AM/AOS; grower: Mike and Joni Sielaff.
- [151] *C. Resplendens* 'KG's Dark Star' AM/AOS; grower: Greg Allikas.
- [152] *C. Martin Wolfe* 'Florida SunCoast' AM/AOS; grower: Jim Roberts, Florida SunCoast Orchids.
- [153] *C. Martin Wolfe* 'June Dog' AM/AOS; grower: Jim Roberts, Florida SunCoast Orchids.
- [154] *C. Mareeba Tiger* 'Crystelle' AM/AOS; grower: Krull-Smith.
- [155] *C. Mareeba Tiger* 'Darth Sidius' AM/AOS; grower: Ben Oliveros, Orchid Eros.





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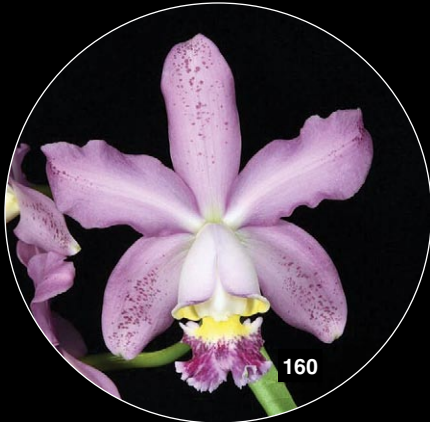
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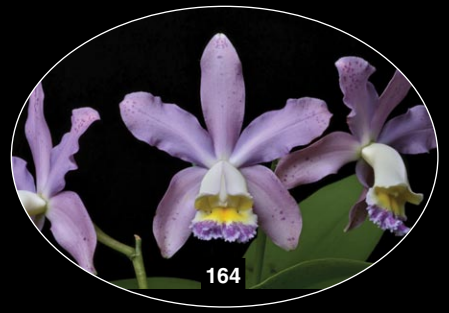
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- [156] *C. Memoria* Frank McNally 'Dumas R.F.' HCC/AOS; grower: Rogerio Duilio Genari; photographer: Luiz Filipe Klein Varella.
- [157] *C. Mareeba Tiger* 'Kylo Ren' AM/AOS; grower: Ben Oliveros, Orchid Eros; photographer: Glen Barfield.
- [158] *C. Mishima Luster* 'Jean' FCC/AOS; grower: Claire and Roger Cole; photographer: Maurice Marietti.
- [159] *C. Memoria* Frank McNally 'Easy Does It' AM/AOS; grower: Henington Farms; photographer: Tom Kuligowski.
- [160] *C. Pittiae* (1886) 'Whisper Something Sexy' AM/AOS; grower: Laura and Wes Newton; photographer: Ernest Walters.
- [161] *C. Pittiae* (1886) 'Whisper Why So Blue?' HCC/AOS; grower: Laura and Wes Newton; photographer: Ernest Walters.
- [162] *C. Memoria* Mack Miller 'Susana' AM/AOS; grower: Miller's Tropicals; photographer: Malcolm McCorquodale.
- [163] *C. Memoria* Mack Miller 'Jessica' AM/AOS; grower: Miller's Tropicals; photographer: Malcolm McCorquodale.
- [164] *C. Pittiae* (1886) 'Paraiso' AM/AOS; grower: Arnaldo Astacio-Diaz; photographer: Greg Allikas
- [165] *C. Kerchoveana* 'Sparky' AM/AOS; grower: David Genovese; photographer: Wes Newton.
- [166] *C. Walnut Valley* 'Pink Passion' HCC/AOS; grower: Max C. Thompson; photographer: Karl Siegler.



In looking at the total progeny of *C. schilleriana*, you find that few of its characteristics remain past the first generation. One of the traits that does seem to still come through in the second generation is the veined coloring on the lip's midlobe. In addition, the colored side lobes as seen in *Cattleya* Walnut Valley 'Pink Passion' HCC/AOS [Pittiae (1886) × Cinnamon Stick] and the veined lip with a picotee as seen in *Cattleya* Pao de Acucar (Kerchoveana × Brabantiae) may also be seen the second generation. Other than these traits from the lip, I can find no other photos of progeny where *C. schilleriana* gives any of its traits, and even these traits are not found past the second generation.

#### *Cattleya schofieldiana*

*Cattleya schofieldiana* is found in Espirito Santo in Brazil where it is known to grow on lichen-covered guava trees 5 to 10 feet (1.5–3 m) above the ground. They have up to five 3.9- to 5.9-inch (10–15-cm) wide flowers per inflorescence.

It is differentiated from *C. granulosa* by the presence of hair-like (rough edges) asperities and fuzz on the midlobe of the lip (Fowlie 1977). This species was originally thought to be a form of *C. granulosa*, so there is a chance that they were commingled and that the parentage of hybrids would be in question.

There are only five AOS awards to this species. 'Exotic Orchids' AM/AOS (88 pts.) and 'Redoubtable' AM/AOS (81, 1982) are notable. These two clones show differences in the position of the lateral sepals, where in 'Exotic Orchids' they almost touch at the apices and 'Redoubtable' curls back in an unusual manner, which I like. I also like this species for the more spatulate (spoon-shaped) petals even if they do sweep down, and I find the lip intriguing with its severe spade-shaped midlobe and the triangularly pointed side lobes. The latest award to 'Dona Maria' AM/AOS is probably my favorite as to me it has the best form, is the largest at 5.3 × 5.5 inches (13.5 × 14.0 cm) and is super glossy. It only had four flowers and a tiny lip compared to 'Exotic Orchids' that had five flowers and nine buds on two inflorescences, but I find the lateral sepals on 'Dona Maria' to be much better placed, having a bit of a gap that is filled by the lip.

#### *Cattleya schofieldiana* hybrids

*Cattleya schofieldiana* only has 16 F1 offspring and 86 total progeny. Only two of the primary hybrids have been awarded thus far — the aforementioned *C. Kerchoveana*, that really shows little

of *C. schofieldiana* in the cross, and a completely nonspotted when crossed to *C. dowiana* in *Cattleya* Debra Renee.

Although not awarded, *Cattleya* Fabulous Cheetah (*aclandiae* × *schofieldiana*) is a nice combination of the two parents with the distal concentration of spots on the sepals and petals, narrower segments, flatter appearance and extreme isthmus or spade-shaped lip from *C. schofieldiana*. The heavily suffused concentration of spots, the deeply colored column and the flower count come from *C. aclandiae*.

This species seems to have reached a hybridizing dead end before it ever got started.

#### *Cattleya velutina*

*Cattleya velutina* is found in Espirito Santo and São Paulo, and, as with most of the bifoliate, it grows high on trees in brighter light. This species to me has the closest thing to a large, classic cattleya look for bifoliate cattleyas with its full, wide spatulate petals complimenting the large, full, undulate lip. To top it off, there is nice spotting on the sepals and petals and nicely veined striations on the lip. The problems that it has are the cupping of the flowers and the reflexing of the segments, especially the dorsal that curls back to the point of almost touching, a trait that some will hate, but one that I find gives it character and adds a bit of whimsy!

At the original writing of this paper there are only three AOS awards to this species and they all have slightly different form and color. The clone 'Bronze Goddess' HCC/AOS is the first award and had six flowers on two inflorescences. 'Copperopolis' AM/AOS had 11 flowers on one inflorescence. 'Shalimar' HCC/AOS is the most recent award and had eight flowers on one inflorescence. I think it is easy to see why 'Copperopolis' had the highest award since it was the most floriferous. The flowers are the flattest and most upright of the group, and the color and spots are well defined.

'Bronze Goddess' has the richest color, especially in the lip. 'Shalimar' has the lowest point score of 75 points and I would attribute that to the poor arrangement, the earthy, somewhat-muddled base color and spots, and the unflattering suffusion of color change on the veins on the lip, as well as the thinness of the segments. It also has the smallest flowers at 2.7 inches (6.9 cm) while 'Copperopolis' measures 3.2-inches (8-cm) wide, which is a significant difference. Of the three most recent awards 'Gayle' AM/AOS has the highest score, 82 points,

and has 10 flowers with the largest at 3.4 inches (8.7 cm), and the petals and lip have good form. What bothers me with both this cultivar and also 'Luke' HCC/AOS is that the dorsal sepals are more upright but seem to twist awkwardly and do not display the recurving of the apex that I have come to appreciate in this species. Ben Oliveros of Orchid Eros was awarded a CCM for 'Kyro' when he exhibited it with 40 flowers and one bud on five 21.25-inch (54-cm) inflorescences with the plant completely filling a 6-inch (15-cm) plastic pot. It was recognized for being an extremely vigorous and a superbly grown example of a usually highly refractory species

#### *Cattleya velutina* hybrids

There are 68 F1 offspring and 176 total progeny for this species. Of the first-generation offspring, only five of those have been awarded and the only one that shows spotting is *Cattleya* Franeana (× *schilleriana*), but the only award is through the D.O.G. (Germany). This award shows a flower that is intermediate between the two species, but with a slight lean toward *C. velutina* in the overall shape of the flowers, especially the recurled apex of the dorsal sepal and even the orange coloring but with the brighter markings from *C. schilleriana*, which also caused the petals to be narrower, but it is still a rather pleasant flower.

Another spotted offspring that I can find a photo of is *Cattleya* Miss Chris (Interglossa × *velutina*). Unfortunately, the *C. velutina* managed to fenestrate the fuller flowers of *C. Interglossa* and provided spots that came out rather muddy and a dorsal that recurves.

The only plants in the extended progeny that have any spots to them have other spotted species in the background that they resemble, and there are not any that retain the characteristics of *C. velutina*.

**MORE COMPLEX SPOTTED HYBRIDS** If you look at *Bc. Gene* May with its green background color heavily covered with dark spots and a magenta lip and consider breeding it to *Brassocattleya* Morning Glory (*B. nodosa* × *Cattleya purpurata*), a pale lavender flower with a white lip that is almost completely striped darker lavender, what do you think the results would be of the cross? You probably would suspect that the flowers would be stellate due to the dominance of *Brassavola* for carrying through shape, but would you have guessed a white flower with fuchsia spots on the linear sepals and petals and circular lip with





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- [167] *C. schofieldiana* 'Dona Maria' AM/AOS; grower: Erick Arce; photographer: Luis Brenes Loaiza.  
[168] *C. granulosa* 'Laverne James' HCC/AOS; grower: Victor Elliott; photographer: Beth Lamb.  
[169] *C. velutina* 'Luke' HCC/AOS; grower: Ben Oliveros, Orchid Eros; photographer: Glen Barfield.



bright fuchsia on the distal edge and a fuchsia column? 'Victoria' AM/AOS has exactly that on four 5.6-inch (14.3-cm) flowers, proving that sometimes genetics is a tricky thing, where certain color and patterns override others just to surprise the heck out of you.

One of the things that we are taught as judges is that a hybrid should be an improvement over the parents, so when I see a hybrid like *Cattleya* YNS Green Leopard (Love Bourbon × Thospol Spot), it makes me wonder what the judges were seeing that I am missing from the photo. 'Jade Dragon' HCC/AOS was awarded 79 points; given the lineage of this flower, I cannot even imagine where the underlying yellow base color comes from, as you have *C. Thospol Spot*, which is a darker flower bred to a *C. Brabantiae* cross that involves *C. Landate* and *C. loddigesii*. Given all that, I would have expected a pink or chartreuse base color with decent-sized spots and a shade of lavender or purple on the lip, not a white lip with a slight lavender blush to the column. To top it off, it only had two flowers. On its own it seems a bit lackluster to me, but perhaps the simplicity of the flowers wowed the judges.

Conversely, a hybrid that is giving us a peek at the future of spotted breeding is the aptly named *Cattleya* Hot Spot (Black Jack × Mark Jones) from Fred Clarke's breeding. In 2004, Fred presented *C. Black Jack* 'Universal' HCC/AOS at the judging table with five nicely arranged 2.75-inch (7-cm) flowers described as yellow tinted green; sepals and petals covered with dark purple-black spots with a peach overlay on the basal portion of the petals and accented with a lavender lip. I presume that the flower size was the main reason that this award barely scored an HCC at 75 points, as the spotting is nicely marked on the petals and quite concentrated on the sepals and the white side lobes and column are accented with lavender striations. Moving on to *C. Hot Spot*, two cultivars have received AOS awards with both showing nice color, form, size and floriferousness — all the things that you want to see as we move away from the spotted species into the best attributes that their progeny carry. 'Royal Basin Speckles' AM/AOS had seven almost 4-inch (9.9-cm) flowers with light tan sepals and light green ovate petals both fully speckled in magenta spots, accented by the white lip with a midlobe that is almost completely overlaid purple, right out to the fine white picotee on the serrated edge, while the white column and anther



[170] *C. velutina* 'Bronze Goddess' HCC/AOS; grower: Leroy Peterson; photographer from the AOS award archives.  
 [171] *C. velutina* 'Shalimar' HCC/AOS; grower: Gildas "Gigi" Conan; photograph from the AOS award archives.  
 [172] *C. velutina* 'Gayle' AM/AOS; grower: Gayle Brodie; photographer: Arthur Pinkers.  
 [173] *C. velutina* 'Kylo' CCM/AOS; grower: Ben Oliveros, Orchid Eros; photographer: Glen Barfield.  
 [174] *Bc. Glorious May* 'Victoria' AM/AOS; grower: Carib Plants, Inc.; photographer: Tom Kuligowski.  
 [175] *C. YNS Green Leopard* 'Jade Dragon' HCC/AOS; grower: Waldor Orchids, Inc.; photographer: Bayard Saraduke.



cap are set off with purple marginal and medial stripes. The only place that I think improvement could be made is in the width of the sepals. The next cultivar to be awarded 'Punatic' AM/AOS had 11(!) almost 4-inch (10-cm) flowers on one inflorescence. The flowers are described as pale green with a light pink overlay that intensifies with age, and spotted dark burgundy. The full, ovate petals have denser spotting proximally, accentuated with a dark, rose-pink, medial blush, most likely from *C. Black Jack* as described previously, which perfectly draws together the light pink lip that is overlaid dark rose on the midlobe and the apices of the side lobes. This cultivar could improve slightly with a flatter midlobe, but the 84 points speaks to the overall quality of this hybrid. Some may not like the blushing at the base of the petals, but for me this works out beautifully!

**THE FUTURE OF SPOTTED CATTLEYAS** Fred Clarke continues his preliminary work on creating blue-spotted flowers. Aranbeem Orchids has tons of new spotted hybrids of all color ranges and, in Hawaii, Michael Blietz is working toward creating spotted flowers with spotted lips using *B. nodosa* hybrids. I have also recently seen some interesting spotted hybrids coming out of *Cattleya alaoii*, which brings an interesting new twist to things. I can hardly wait to see what interesting flowers are produced. I really feel like they are setting a new standard in spotted-cattleya breeding.

**Acknowledgments**

This paper has truly been a labor of love. I can only hope that the joy that these spotted wonders bring me will encourage you to not only grow them, but to also show them off. And to all those hybridizers that endeavor to continue creating all kinds of wonderful new and exciting colors and patterns, my deepest thanks, for without you, these cheetahs would have never made it out of the wild!

**Acknowledgments**

This paper would certainly have been lacking were it not for the input from the following people: Duncan Bass, Michael Blietz, Vern Bloch, Fred Clarke, Doris Dukes, Alan Koch, David Maidment, Ross Maidment, Todd Marshall, Francisco and Cristina Miranda, Lois Posey, Marv Ragan, Jim Roberts, Ken Roberts, Bill Thoms and Roy Tokunaga, along with the support of my family and friends who had to listen to my ad nauseam diatribe about every aspect of spotted cattleyas.

— *Laura A. Newton* (email: [laura@aos](mailto:laura@aos)).



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GREG ALLIKAS



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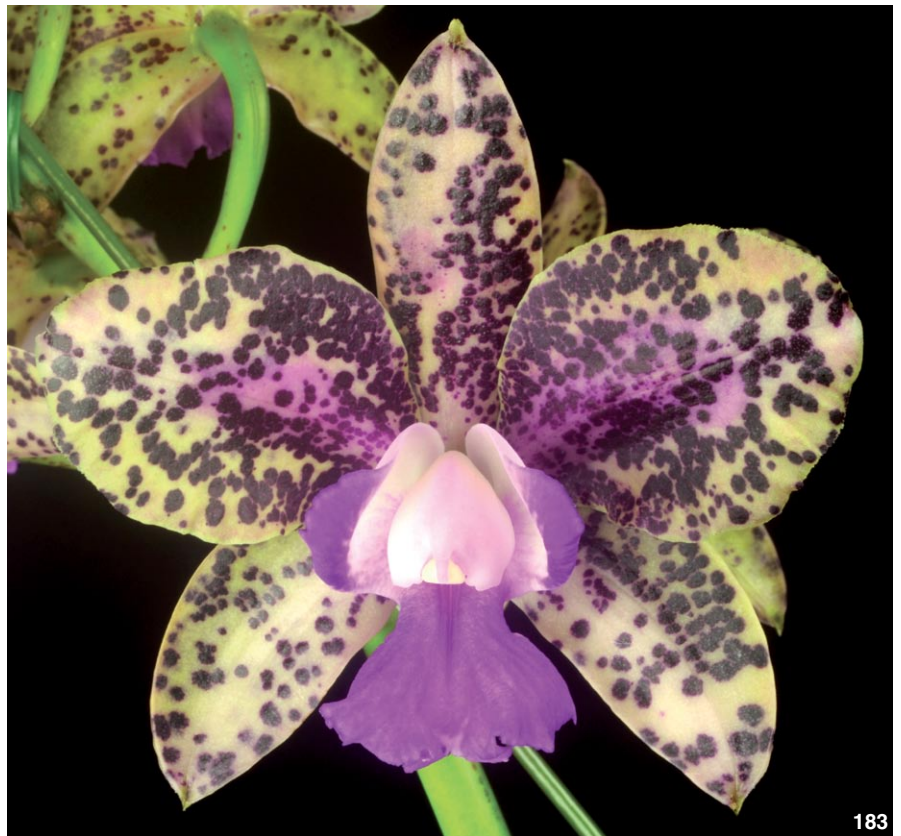
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ARNOLD GUM



GLEN BARFIELD

- [176] *Rlc.* Pali Polk Dot 'Nalo' HCC/AOS; grower: Greg Allikas.
- [177] *Rlc.* Day Tripper 'Robert Palmer' AM/AOS; grower: Palmer Orchids.
- [178] *Rlc.* SunCoast Sunspots 'Tinkerbelle' HCC/AOS; grower: Robert Palmer.
- [179] *C.* Mark Jones 'Gulfshore' HCC/AOS; grower: Gulfshore Orchids.
- [180] *C.* Jungle Festival 'Venice Sun Spots' HCC/AOS; grower: Susan and Bill Fender.
- [181] *C.* Quinquecolor (*aelandiae* × *forbesii*); grower: Greg Allikas.
- [182] *C.* Hot Spot 'Royal Basin Speckles' AM/AOS; grower: Arthur Pinkers.
- [183] *C.* Hot Spot 'Punatic' AM/AOS; grower: Ben Oliveros, Orchid Eros.



# Spots and Stripes 2020

Spotted and Striped Masdevallias

MARGUERITE WEBB AND CORDELIA HEAD





## WEBB AND HEAD

“THERE IS SCARCELY a genus belonging to the Orchideae [sic] that has been more rapidly expanded of late years... than *masdevallia*.” Those words, written by James Veitch more than 100 years ago, are true again today, particularly in the context of *masdevallia* hybridizing. Commercial growers and hobbyists alike are creating new *masdevallia* hybrids. Because the hybrids are easier to grow and flower than most of the species, they have joined the mainstream in the orchid world. Approximately 1,470 *masdevallia* hybrids were registered by 2020. The majority of these new *masdevallias* were created in the last 50 years. Because of the diversity inherent in the more than 500 species that comprise the genus, the breeder has the opportunity to combine many desirable qualities such as flower size, color, shape and patterning; multiple flowering; successive blooming; compact plant size; warmth tolerance and fragrance. As we come to understand the genetic influence of particular species in this large and varied genus, the possibilities seem boundless.

In the late 1800s, the early years of *masdevallia* hybridizing, *Masdevallia veitchiana* was a popular parent, utilized in nearly half of the 45 hybrids registered by the turn of the century. In more recent breeding, the continued use of *Masd. veitchiana* and its popular primaries, such as *Masdevallia* Copper Angel (*veitchiana* × *triangularis*) and *Masdevallia* Angel Frost (*veitchiana* × *strobilii*) created a dominance of orange hybrids. As hybridizers began to move beyond orange breeding, they sought species parents that would not only promote attractive base colors in the flowers of their offspring, but vivid patterning in the form of spots and stripes. Two Bolivian species, *Masdevallia chaparensis* and *Masdevallia yungasensis*, and many of their progeny play the preeminent role in breeding spots and stripes in *masdevallias*.

*Masdevallia yungasensis* (syn. *Masdevallia calocodon*) is the foremost parent that will breed striped progeny, always in the first generation and often the second and beyond. The flowers of *Masd. yungasensis* are held just above the 5–6-inch (12.7–15.2-cm) light-green, paddle-shaped leaves. The flower varies from white to violet-pink with an open sepaline cup attractively striped with purple. There are two forms of *Masd. yungasensis*. The one most frequently used in hybridizing was described in the past as *Masd. yungasensis* subsp. *calocodon* (*Masdevallia calocodon*). The



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other variety, formerly classified as *Masd. yungasensis* subsp. *yungasensis*, has a more cupped, short-stemmed flower, which tends to be white or pale pink with bold stripes. When the short-stemmed variety of *Masd. yungasensis* is used to make a hybrid, the offspring are inclined to inherit its compact inflorescences and more boldly striped flowers. Although considered to be a cool-growing orchid, the progeny of *Masd. yungasensis* are generally temperature tolerant, particularly when the other parent is an intermediate or warm grower.

To date, *Masd. yungasensis* has produced 186 hybrids, 38 of which are direct offspring. The attractive purple striping seems to dominate, occurring with striking clarity in all primary hybrids, as well as in many advanced generations. When *Masd. yungasensis* is combined

- [1] This strikingly striped example of *Masd. yungasensis* expertly photographed by Eric Hunt.
- [2] An example of the form of *Masd. yungasensis*, grown by J&L Orchids, formerly considered *Masd. calocodon*.
- [3] *Masd. ignea* 'Jake' HCC/AOS; grower: Golden Gate Orchids
- [4] *Masd. Minaret* 'Burrard Inlet' HCC/AOS; grower: Joe Chow.

with *masdevallias* that have prominent veins in their flowers such as *Masdevallia ignea*, the stripes in the offspring follow the pattern of the veins in the latter parent, such as in the hybrid *Masdevallia Minaret* (*yungasensis* × *ignea*). When bred with a flower that has no such veining, the stripes of the progeny's flower will adhere to the pattern in *Masd. yungasensis*. *Masdevallia yungasensis* will often lighten



the base color of the offspring, even when bred with vividly colored species such as *Masd. ignea* or *Masdevallia coccinea*. The clear purple striping dominates creating a bold contrast against a lighter backdrop.

*Masdevallia* Harlequin (*yungasensis* × *uniflora*) is an attractive primary cross registered by Beall Company in 1987. The soft-pink, striped flower is slightly larger than either parent, has a nice open, round shape and is pertly held above the 7-inch (17.8-cm) leaves. Hybrid vigor has insured robust growth and greater floriferousness than either parent. A lovely plant in its own right, *Masd.* Harlequin has also parented nearly 40 hybrids. *Masdevallia* Randwick Bells, (*torta* × Harlequin) is a nice example of the primary hybrid, *Masd.* Harlequin, bred back to a species. *Masdevallia torta* has a waxy gold flower with dense, dark-red stripes and overlay. The fused sepals form a tube, which opens as the lateral sepals extend forward. The substance and color of this species is desirable, but the shape is not. Fortunately *Masd.* Randwick Bells inherited the best characteristics from both parents. The hybrid has lovely open flowers similar in shape to *Masd.* Harlequin, but the good substance, darker lilac-purple suffusion and red stripes are enhanced by the species parent, *Masd. torta*. *Masdevallia* Randwick Bells was registered in 2007 by C. Halls.

*Masdevallia* Rainbow Tiger (Blanch × Harlequin), registered in 1998, is a more complex cross, combining the primary *Masd.* Harlequin with the hybrid *Masdevallia* Blanch (*Stella* × *instar*). Consequently, with a greater range of genetic material available, there is more opportunity for variety in the offspring. Flowers range from white to soft pink to vibrant purple-pink, each barred with clear purple stripes. This hybrid tends to be free-flowering.

*Masdevallia* Tuakau Candy (*yungasensis* × *triangularis*) was made by L&R Orchids in New Zealand and registered by M. Adams in 1994. The resulting hybrid is truly a blend of the best qualities of both parents. Flowers range in base color from clear white to light peach-pink with a yellow-peach suffusion in the center. The fused sepals are wide open, each decorated with three vivid stripes that meet at the base of the sepal tails. The abundant flowers on this miniature plant are held just above the leaf tops on slightly arching stems. The floriferousness of the hybrid seems to exceed either parent, garnishing numerous awards.

*Masdevallia* Tuakau Candy has imparted many of its fine qualities to its



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6 JAY NORRIS



7 CORDELIA HEAD



8 JOHN PORTEOUS

attractive offspring. *Masdevallia* Angel Candy (Sunny Angel × Tuakau Candy) is a showy, floriferous, compact masdevallia hybrid. The yellow flowers are similar in size and shape to those of *Masd.* Tuakau Candy, but the stripes are less prominent. *Masdevallia* Angel Candy consists of only 25 percent of the striped parent, *Masd. yungasensis*, whereas *Masd.* Tuakau Candy is comprised of 50 percent. *Masdevallia* Sunrise Candy (Bella Donna × Tuakau Candy) combines a large, white-flowered hybrid with *Masd.* Tuakau Candy. White flowers are usually dominant in masdevallia hybridizing, thus the lovely hybrid has large, albescent flowers with muted purple striping, an orange throat and yellow tails.

One of the most exciting hybrids made with *Masd.* Tuakau Candy may be *Masdevallia* Veitch's Candy Cane



9 LYNN O'SHAUGHNESSY

(Tuakau Candy × *veitchiana*), made by I. N. Komoda. The best of this cross display vivid-orange flowers, abundantly striped with dark reddish-purple lines. The strength and clarity of the patterning on most clones is surprising since the cross is only 25 percent *Masd. yungasensis*.

*Masdevallia* Minaret (*yungasensis* × *ignea*), hybridized by Beall in 1990, has lovely flared lateral sepals, accentuated by stripes that follow the attractive curve of the sepals. The base color may be white to pink, or peach contrasted with thin purple bands. *Masdevallia* Minaret was combined with *Masdevallia caudata*, a showy species with a large, striped dorsal sepal, to make *Masdevallia* Peppermint Rock. *Masdevallia caudata* contributed a substantial, striped dorsal sepal, and *Masd.* Minaret imparted light-pink to white, curved, striped lateral sepals, creating an attractive flower. Surprisingly, each floral segment of *Masd.* Peppermint Rock has more stripes than either parent. *Masdevallia* Red Lys is the offspring of *Masdevallia* Angel Heart (*ignea* × *infracta*) and *Masd.* Minaret. This hybrid has a lovely wide-open flower with dark pink base color and fine purple striations.

*Masdevallia* Golden Tiger (*veitchiana* × *yungasensis*) is a classic striped hybrid that never goes out of favor. Originated by Golden Gate Orchids in 1991, it continues to be popular in orchid collections today due to its vigor, floriferousness and lovely striped flowers. It has also parented some desirable hybrids. *Masdevallia* Tiger Bay is the combination of *Masdevallia* Golden Tiger and the species *Masdevallia triangularis*. This compact-growing hybrid produces a profusion of perky yellow to golden-orange flowers with dark-red stripes. *Masdevallia* Tiger Kiss (Golden Tiger × Monarch) is a stately plant with large waxy, vivid-orange, long-tailed flowers. The striping is variable but the flower is always attractive. When *Masd.* Tiger Kiss is bred with *Masd. coccinea*, the resulting hybrid, *Masdevallia* Setting Sun, displays stunning shades of glowing orange with dark-red striping radiating from the center of the flower. *Masdevallia* Setting Sun was registered by Golden Gate in 2006. Two more complex *Masd.* Golden Tiger hybrids warrant mention: *Masdevallia* Eye of the Tiger, originated by P.L. Jackson in 2012, and *Masdevallia* Stripe King registered by C. Halls in 2013. *Masdevallia* Stripe King (King of Kings × Gold Pinch) has an impressive, broad flower with vibrant dark-red stripes against an orange background. *Masdevallia* Eye of the Tiger (King of Kings × Tiger Kiss) has



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TECK HIA



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JAY NORRIS



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LYNN O'SHAUGHNESSY



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LOURENS GROBLER

a more elongated flower with extended caudae and less pronounced stripes.

*Masdevallia* Night Stripes (*yungasensis* × *datura*) was created by John Leathers in 1994. The flowers of this hybrid vary somewhat in their coloration, but all the plants are lovely, prolific bloomers. The base color of the flower is usually white, often with a light-pink blush, and yellow throat and tails. Some clones have bright-violet stripes on the sepals, and others may be muted. Even though *Masd.* Night Stripes is half *Masd. yungasensis*, the white parent *Masdevallia datura* often dominates and may lighten or totally wash out the stripes. In the next generation, *Masdevallia* Myck Santos (Harlequin × Night Stripes) displays its abundant pink flowers just above the leaf tops. Although *Masd. yungasensis* is represented in

- [5] *Masd.* Harlequin (*yungasensis* × *uniflora*)
- [6] *Masd.* Rainbow Tiger 'Raspberry Stripes' HCC/AOS; grower: Mario and Conni Ferrusi
- [7] *Masd.* Tuakau Candy 'J&L'; grower: J&L Orchids.
- [8] *Masd.* Angel Candy 'Angel' AM/AOS; grower: J&L Orchids.
- [9] *Masd.* Sunrise Candy 'Cloud Dancer' HCC/AOS; grower: Lynn O'Shaughnessy.
- [10] *Masd.* Veitch's Candy Cane 'Sandra's Sunset' HCC/AOS; grower: Sandra and Ron Midget.
- [11] *Masd.* Peppermint Rock 'Multistripe' AM/AOS; grower: Malcolm and Judy Adams.
- [12] *Masd.* Red Lys 'Free Spirit' AM/AOS; grower: Lynn O'Shaughnessy.
- [13] *Masd.* Golden Tiger





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- [14] *Masd.* Tiger Bay 'Free Spirit' HCC/AOS grown and photographed by Lynn O'Shaughnessy.
- [15] *Masd.* Tiger Kiss photographed by Eric Hunt.
- [16] *Masd.* Setting Sun 'Free Spirit' AM/AOS grown and photographed by Lynn O'Shaughnessy.
- [17] *Masd.* Jaime Posada 'Patriarch' AM/AOS. Grower: John J. Leathers; photographer: Ken Jacobsen.
- [18] *Masd.* Hani 'Eumelia y Manuel' AM/AOS. Grower: Manolo Arias; photographer: Walter H. Wust.
- [19] *Masd.* Pixie Leopard 'Williamsburg's Jef' AM/AOS. Grower: Christine Chowning; photographer: James McCulloch.
- [20] *Masd.* Night Stripes; grower and photographer: C. Hall



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[21] *Masd.* Chispitas 'Sun Spots' AM/AOS. Grower: Manolo Arias; photographer: Walter H. Wust.

[22] *Masd.* Pixie Snow Leopard 'TOTY' AM/AOS. Grower: Colomboquideas Ltda.; photographer: Juan Carlos Uribe.

[23] *Masd.* Sunset Jaguar photographed by Eric Hunt.

[24] *Masd.* Bobcat 'Snow Leopard' AM/AOS. Grower: Mountain Orchids; photographer: Teck Hia.

[25] *Masd.* Myck Santos 'Miniceps' AM/AOS. Grower: Mario and Conni Ferrusi; photographer: Jay Norris.





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ERIC HUNT



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SEBASTIÁN GALARZA

both parents, the striping of *Masd.* Myck Santos is light. The pink flowers are more open than those of *Masd.* Night Stripes and stripes emanate from the red-orange throat of the flower.

When the species *Masd. yungasensis* is bred with the complex hybrid *Masdevallia* Macinnes' Golden Heart, the resulting hybrid is a handsome blend of the parents. The glowing-orange flower of *Masdevallia* Jaime Posada (*yungasensis* × Macinnes' Golden Heart), although smaller than its hybrid parent, has inherited its firm substance and vibrant color. The beautiful stripes from *Masd. yungasensis* make a bold contrast.

*Masdevallia chaparensis* is a close relative of *Masd. yungasensis* and is similar vegetatively and in floral structure. The former is a slightly larger plant with longer inflorescences. The somewhat cupped flowers of *Masd. chaparensis* range from lilac to bright lavender, and are speckled and mottled with irregular patches of purple. The contrast is striking, the pattern unusual, and this eye-catching dappling is carried forth to the progeny. When combined with other colors, the effect is remarkable. *Masdevallia*

*chaparensis* has been utilized in 110 hybrids to date, 32 of which are direct offspring.

*Masdevallia* Hani (*coccinea* × *chaparensis*), registered in 1992, is an example of a hybrid that may impart qualities to its progeny that are not always visible in the parent itself. The shape of *Masd.* Hani is reminiscent of *Masd. coccinea*. The color range is shades of purple to orange, with little to no patterning on the surface of its sepals. When *Masd.* Hani was crossed with the species *Masd. triangularis*, the result was dramatic. *Masdevallia* Tarni (Hani × *triangularis*) displays beautiful flat, *triangularis*-shaped flowers, speckled and barred with plum. *Masdevallia triangularis* dominates, imparting its desirable flower shape and floriferousness, but *Masd.* Hani contributed much of the spots and speckles that decorate the surface of the flower.

*Masdevallia* Chaparana, a primary hybrid between *Masd. chaparensis* and *Masd. veitchiana*, was made by E. Katler in 1988. The hybrid, while a pleasing blend of its parents, became more renowned as a parent in further breeding of patterned

*masdevallias*. *Masdevallia* Chaparana has variable orange flowers, blushed and dappled with purple. While the shape of *Masd.* Chaparana is reminiscent of *Masd. veitchiana*, unlike its parent the flower has a tendency to reflex and curl backwards. Fortunately, the next hybrid generation does not seem to inherit this flaw. *Masdevallia* Chaparana has more than 35 progeny.

*Masdevallia* Pixie Leopard (Chaparana × *decumana*) was registered by M. Pendleton in 1997. Although *Masd.* Pixie Leopard is only 25 percent *Masd. chaparensis*, the characteristic spots and speckles decorate this flower beautifully. The base color ranges from white, to soft lilac, to light orange with a striking overlay of dark-purple patterning. The miniature species parent, *Masdevallia decumana*, reduces the size of the plant, while enhancing the size and shape of the flower.

The next generation of hybrids made with *Masd.* Pixie Leopard is equally charming. *Masdevallia* Pixie Magic (Pixie Leopard × Magic Dragon), registered by B.M. Duncan, boldly displays jagged purple stripes over an orange background.

This hybrid is a prolific bloomer. Another notable second-generation *Masd.* Pixie Leopard cross, *Masdevallia* Norah-Jane (Nicole × Pixie Leopard) has widespread light yellow-orange segments with dark-violet, uneven speckles. Finally, *Masdevallia* Chispitas (Pixie Leopard × Gisela Ipanaque) was registered by Perufloora in 2015. *Masdevallia* Chispitas has shapely, widespread white sepals dappled and blushed with amethyst. The flowers are handsomely displayed above the miniature plant.

*Masdevallia* Ada's Leopard (Ada's Delight × Funky Leopard) is a complex *Masd.* Chaparana hybrid with flamboyant, purple speckling on a light-pink, yellow or white background. The distinct patterning on some clones is arranged in uneven patches of violet. Other clones have vibrant, closely set maroon stripes, rarely seen in the progeny of spotted masdevallias.

The flowers of *Masdevallia* Pixie Snow Leopard (*Masd.* *coccinea* × Pixie Leopard) may have a color palette in the purple tones, or the orange of the *Masd.* *veitchiana* genes might prevail. Most clones have dark purple-red markings in the form of irregular spotting and barring. The flower has the contour of *Masd.* *coccinea* but the lateral sepals are more narrow.

*Masdevallia* Sunset Jaguar (*chaparensis* × Copper Angel) combines the purple spotted and speckled species *Masd.* *chaparensis* with a classic primary hybrid, *Masd.* Copper Angel. *Masdevallia* Copper Angel is a robust, intermediate grower, which imparts warmth tolerance, vigor and floriferousness to its offspring, *Masd.* Sunset Jaguar. The exotic flowers of *Masd.* Sunset Jaguar vary greatly in color and embellishment, blending combinations of orange, yellow, red or purple. The pleasing open-triangular shape of *Masd.* Copper Angel is retained, but *Masd.* *chaparensis* dominates the patterning and color scheme. *Masdevallia* Sunset Jaguar was registered by S. Gettel in 1990.

*Masdevallia* Sunset Jaguar has parented 10 hybrids in the past 30 years. In 1994, Mountain Orchids registered *Masdevallia* Bobcat, a hybrid between *Masd.* Sunset Jaguar and the species *Masdevallia lamprotyria*. *Masdevallia lamprotyria* is a floriferous, intermediate-growing, miniature species from Ecuador and Peru. The hybrid, *Masd.* Bobcat, retains the flower size of *Masd.* Sunset Jaguar and often has a light-pink or white base color flower overlaid with purple



CORDELIA HEAD

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NICOLAS GOMEZ

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freckling. Some clones are concolor, usually pink.

Two *Masd.* *chaparensis* hybrids have clean, polka-dot patterned flowers. In both cases, the grex consists of a primary hybrid bred with *Masd.* *chaparensis*. *Masdevallia* Geneva Spots (*chaparensis* × White Swallow), registered in 2001 by Golden Gate Orchids, has clear white, tubular flowers, which flare widely at the apex. What makes this hybrid different from most of the *Masd.* *chaparensis* crosses is the random, amethyst spotting covering the flower. This along with the long golden tails and free-flowering habit make it a real show stopper. *Masdevallia* Mandy (Monarch × *chaparensis*) combines a large orange *Masdevallia macrura* hybrid with the spotted species, *Masd.* *chaparensis*. The resulting hybrid, *Masdevallia* Mandy, is a beautiful blend of the parents. The large, shapely apricot-orange flower is evenly dotted with violet and has reddish glow in its center.

Having examined the hybrids of the two foremost parents used to breed spots and stripes, what happens when those two species parents are combined? *Masdevallia* John Leathers (*chaparensis* × *yungasensis*) was made by B. Cobbledick in 1992. The patterning varies from thick, jagged bands of purple on white to clones that look more similar to *Masd.* *yungasensis*. There are six *Masd.* John Leathers progeny registered to date illustrating thus far that the stripes of *Masd.* *yungasensis* are more dominant than the spots of *Masd.* *chaparensis*.

The breeding lines discussed above represent a sampling of the diverse and desirable spotted and striped masdevallias cultivated today. This colorful array of



AOS AWARDS ARCHIVES

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[26] *Masd.* *chaparensis*

[27] *Masd.* Chaparana 'Equiflor-a' HCC/ AOS. Exhibitor: Equiflor-a.

[28] *Masd.* Geneva Spots 'Kinza'; grower: J&L Orchids, Inc.

[29] *Masd.* Mandy 'Libardo' AM/AOS grown by Libardo Toro.

[30] *Masd.* John Leathers 'Carlotta' AM/ AOS. Exhibitor: Robert Culver.

species and hybrids gives us a glimpse of possibilities yet to explore and guarantees a bright future for these marvelous orchids.

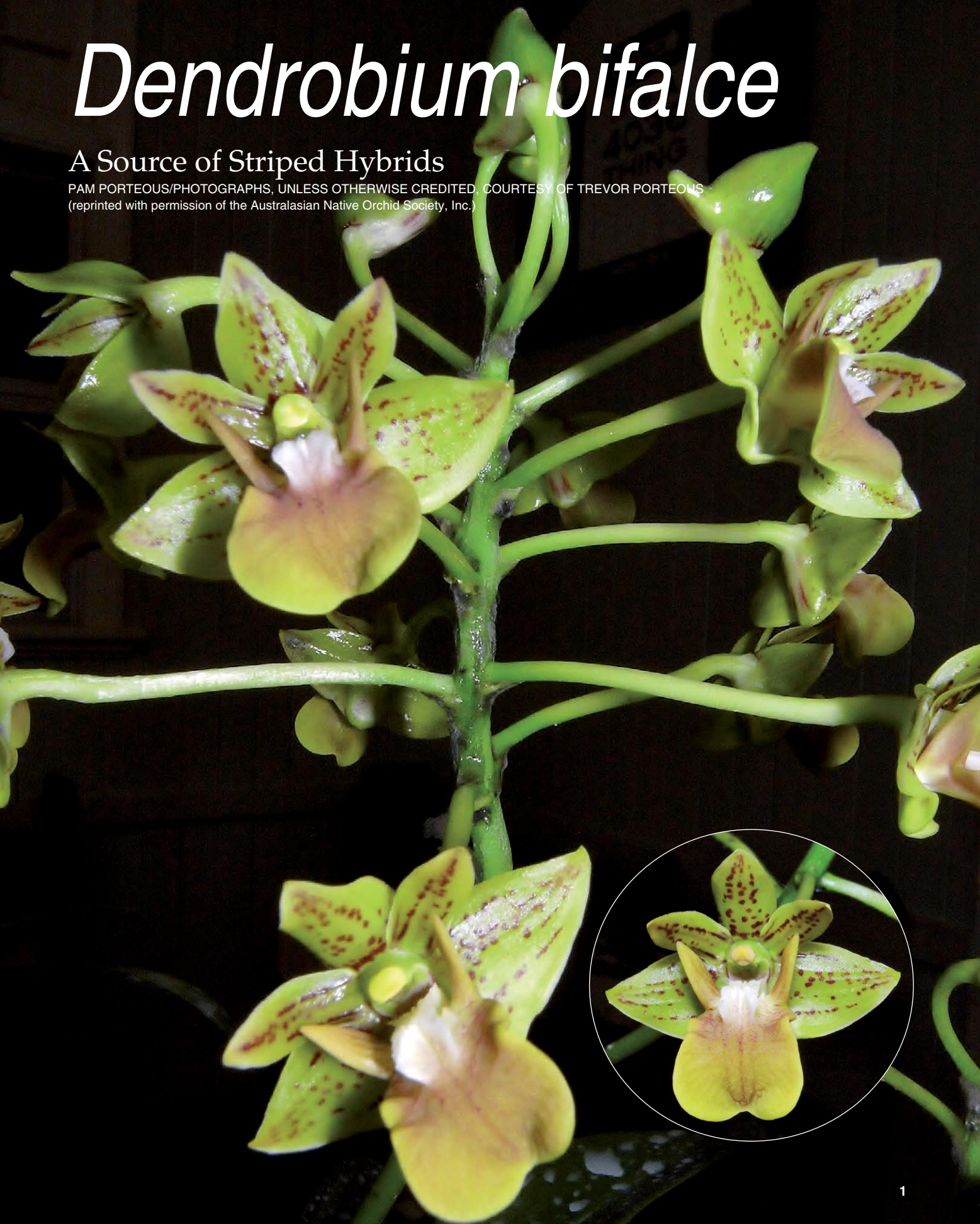
— Marguerite Webb was a partner in J&L Orchids for 38 years where she specialized in *Masdevallia* and *Dracula* species and hybrids. Her retirement job is offering special support to young students. She enjoys growing a modest collection in her home and visits J&L often. Cordelia Head is an AOS judge and previous owner of J&L. She now works for the new owners both at the greenhouse and traveling with them to shows. She is also a hobbyist growing 100+ miniatures in a large case in her home (email: cordelia@jlorchids.com).



# *Dendrobium bifalce*

## A Source of Striped Hybrids

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## PORTEOUS

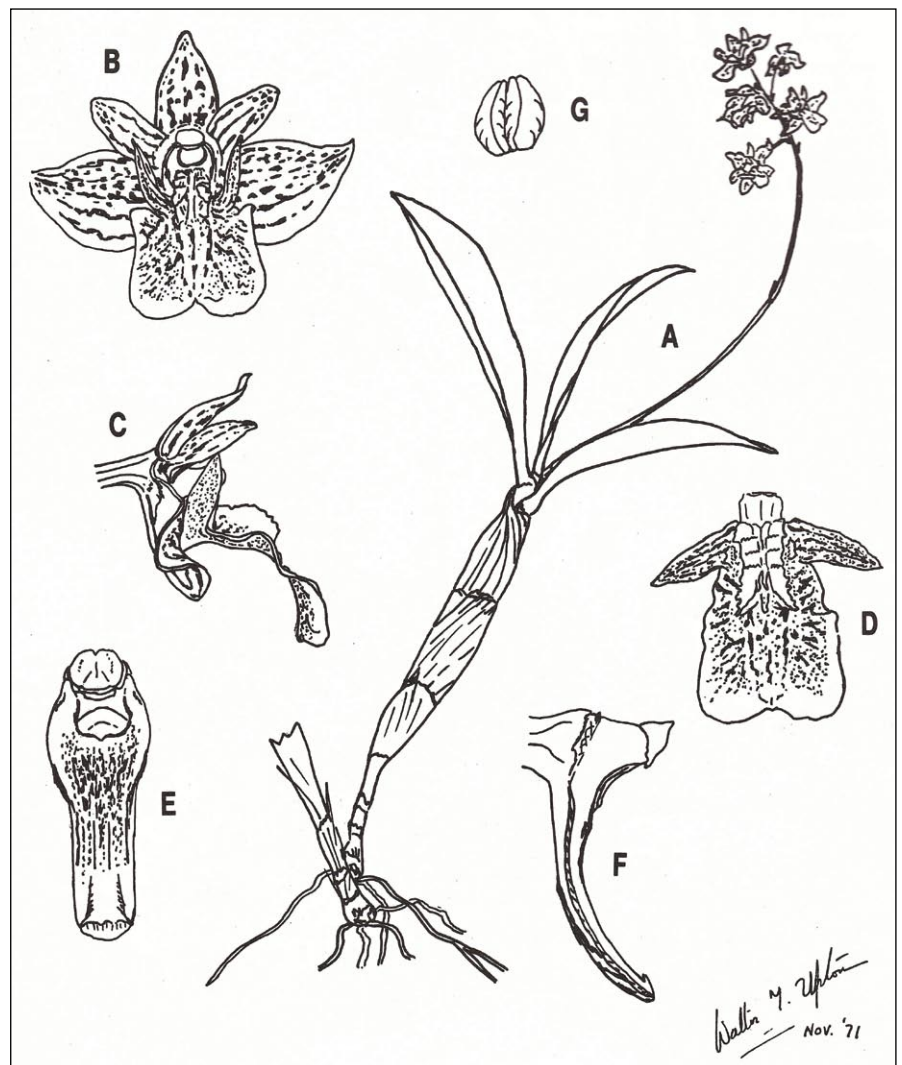
THERE ARE APPROXIMATELY 50 species in *Dendrobium* section *Latouria*. They are distributed from the Philippines to Samoa, and the center of distribution is Papua New Guinea, where 45 species are found. There is one species in Australia, *Dendrobium bifalce*. *Latouria* dendrobiums are epiphytic or occasionally lithophytic and predominantly grow on rainforest trees from sea level to high altitudes, usually in areas of year-round rainfall. The plant size ranges from small to large, and the long-lasting flowers vary considerably in size and shape. The genus *Latouria* was first established in 1850. Miquel transferred it to the genus *Dendrobium* in 1855, placing it in its own section for which he retained the name *Latouria*.

The general characteristics of section *Latouria* include pseudobulbs that are clumped closely together. Although mostly club shaped, they can vary in shape from stout to long and slender. The leaves lack a sheathing base and are borne near the apex of the stem. Inflorescences arise from near the apex, often appearing terminal and have a few rather fleshy flowers. The labellum is prominently three lobed with a prominently raised callus. Some large-flowered species are among the most spectacular in the subtribe and members of the section are becoming popular in cultivation.

*Dendrobium bifalce* was named by Lindley in 1843. It has had many synonyms over the years: *Bulbophyllum oncidiochilum* Kraenzl. 1894; *Callista bifalcis* (Lindl.) Kuntze 1891; *Dendrobium breviracemosum* F.M. Bailey 1899; *Dendrobium chloropterum* Rchb.f and S. Moore 1878; *Doritis bifalcis* (Lindl.) Rchb. g. 1860; *Latourea oncidiochila* (Kraenzl.) Kraenzl. 1894; *Leioanthum bifalce* (Lindl.) M.A. Clem. and D.L. Jones 2002; and *Sayeria bifalcis* (Lindl.) Rauschert 1893.

Cribb (1986) considered that section *Latouria* contains several somewhat-disparate groups united by their general habit, fleshy flowers and a raised, fleshy, longitudinally grooved callus on the lip. *Dendrobium bifalce* embodies these characteristics — the fleshy, heavy-substantiated flowers have a distinct group of white calli that contrast with the greenish-bronze lip.

*Dendrobium bifalce* occurs in New Guinea and adjacent islands, Timor, the Solomon Islands and Cape York Peninsula in northern Australia. It is a species of the hot, steamy lowlands of open savannahs, open rainforests and coastal areas, almost always below 3,281 feet (1,000 m) in areas of year-round rainfall and



hot temperatures that vary only slightly from the low 80s F (27–29 C) during the day to low 70s F (21–23 C) at night. Temperatures are similar from summer to winter. It often grows in situations of high light intensity, even in baking sun on rocks where plants are often bleached yellowish-green. In Australia, *Den. bifalce* is very common in the Bamaga scrubs and in the Captain Billy rainforest of the Heathlands National park and is also very common in Iron Range area and all the way through the Mc Ilwraith Range that is to the east of Coen. It is more common on the eastern watershed where it receives more reliable rain. The species grows on boulders, trunks and branches of rainforest trees in brightly lit, humid situations. The 11.8–17.7 inch (30–45 cm) sympodial plants form large clumps. Pseudobulbs are fusiform, up to 23.6 inches (60 cm) long and 0.4–0.6 inches (1–1.5 cm) in diameter with 5–7 nodes below the leaves. Each pseudobulb has two to four leaves, which are leathery, oblong, suberect and somewhat channelled. The

[1] *Dendrobium bifalce* 'Rocky River', a form of the species from Queensland, Australia.

[2] Line drawing of *Den. bifalce*.

leaves are up to 4 inches (10 cm) long and clustered at the apex of the pseudobulb. The inflorescences are erect, up to 7.9 inches (20 cm) long and arise from apical nodes. Several racemes may be produced by each growth. The flowers are clustered toward the top of the inflorescences, which have a long, heavy peduncle and a short rachis.

*Dendrobium bifalce* can flower throughout the year, but most commonly in autumn and winter. It has six to 10 flowers that open widely. Each flower is about ¾ inch (2 cm) across, waxy and long lasting. The petals and sepals are yellow or yellow green to pale green and marked with maroon. Flowers usually have small rows of spots or lines on the petals and sepals. The sepals are much broader than the petals and the bases of the lateral



sepals are fused to the column foot. The prominent labellum may be white, fawn colored or yellowish-green to bronze with a yellow to brownish-purple midlobe and a white callus. The three-lobed labellum is broad and hinged to the apex of the column foot and has erect and narrow side lobes. It is perhaps less showy than others in the *Latouria* section and is one of the smaller-flowered species, but the substance of the wide-open flowers, contrasting colors and interesting flower formation are appealing features.

Three awards are recorded for *Den. bifalce*; one for *Den. bifalce* 'Anne' received a quality award of HCC/AOS in 1988. *Dendrobium bifalce* 'Wombat' received a CBM/AOC from the Australian Orchid Council in 1994 with 49 flowers.

**HYBRIDS** The first registered hybrid was *Dendrobium* Dalvey, registered by the Singapore Botanical Gardens in 1951 as a cross between *Den. bifalce* and *Dendrobium phalaenopsis* (now a synonym of *Dendrobium bigibbum* var. *superbum* Hort. ex Reich.f., in section *Phalaenanth*). *Dendrobium bifalce* was the capsule parent. One of the seedlings was named 'Candy Stripes'. The shape displays the wide lateral sepals and lobed lip from *Den. bifalce* but the color from *Den. bifalce* is not dominant. The appearance of stripes encouraged hybridizers to consider *Den. bifalce* and its hybrids as possibilities for producing novel, appealing striped flowers.

Seventeen years later, *Dendrobium* Guinea Maid was registered by Limberlost in 1968. Again *Den. bifalce* was the capsule parent and crossed with *Dendrobium* New Guinea (*macrophyllum* × *atroviolaceum*). Of the 14 registered primary crosses, nine were made in Australia by hybridists including Kevin McFarlane, Phil Spence, Ian Lonne and J. Jones. In the first-generation crosses, 11 were primary hybrids with sections *Spatulata*, *Dendrocoryne*, *Latouria* or *Phalaenanth*. When *Den. bifalce* was crossed, these same sections were used, most frequently section *Spatulata*. Many of the primary *Den. bifalce* crosses have been used in more complex hybrids.

While *Den. bifalce* tends to have spots or small rows of deeper color, the exciting find for hybridizers was that its progeny commonly had stripes on the petals and sepals. Depending on the other parent, the progeny showed narrow-to-wide segments and a variety of shapes, but the striping on the segments was fairly consistent and highly desirable.

Australian hybridist Phil Spence (pers.



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- [3] *Den.* Dalvey 'Candy Stripes'. This hybrid of *bifalce* and what is today called *bigibbum* var. *superbum* was the first registered hybrid of *Den. bifalce*.
- [4] *Den.* Gold Stripe (*bifalce* × *discolor*), an unusual insectional hybrid with section *Spatulata*, was registered in 1973.
- [5] *Den.* Maggie May (*canaliculatum* × *bifalce*) was registered in 1992.
- [6] *Den.* Edda 'Mark' (*bifalce* × *tetragonum*) has produced a number of unregistered and registered hybrids.
- [7] *Den.* (Edda × Gillian Leaney)
- [8] *Den.* (Edda × *kingianum*)
- [9] *Den.* Edan Stripes (Edda × Ellen)
- [10] *Den.* Wasy! (Edda 'Lloyd' × *speciosum* 'Pure Gold') was made using a yellow form of *speciosum*.
- [11] *Den.* Wasy!
- [12] *Den.* (Rosella × Edda)





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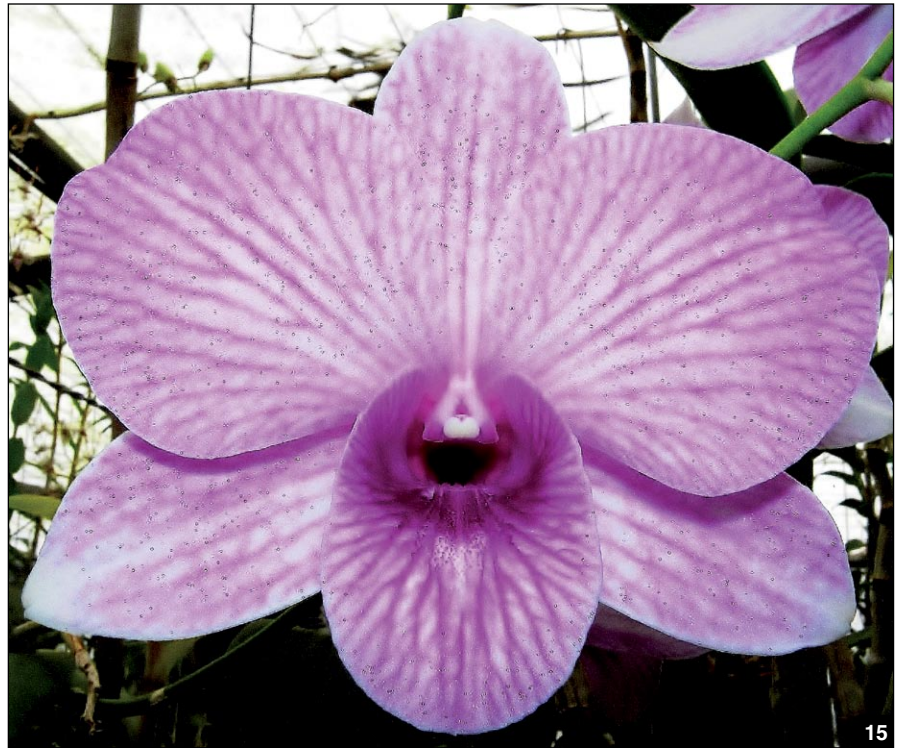
comm.) chose to use *Den. bifalce* as a parent because of its long-lasting flowers and long peduncle. The striping was an added quality and was quite dominant. He reported that when hybridizing with *Den. bifalce*, the seedlings had little variation in the first generation in that most were striped. The striping carried through for four to five generations. *Dendrobium bifalce* was the source for the striping in *Dendrobium Candy Stripe* and its line of hybrids. The open presentation of the flowers also carried on to its progeny.

Less desirable results from using *Den. bifalce* as a parent were that the flower size was smaller than desirable and often with crowding of flowers on the rachis. It is also a comparatively large-growing plant, considering it has relatively short racemes with few flowers. Overall the hybrids did not conform to the popularly desired form of round and flat flowers.

In contrast, *Dendrobium Edda* (*bifalce* × *tetragonum*), made by Kevin McFarlane from Cairns, Australia, did not display dominance of shape from *Den. bifalce*. Flowers predominantly resembled *Den. tetragonum* in shape, often with some twisting to the segments. Doug Moss, Queensland hybridizer and proprietor of the former Southern Cross Orchid Nursery, used *Den. Edda* to produce *Dendrobium Wasy* and several unnamed hybrids. He said it was a flower that only a mother could love! There are three hybrids made in Australia and registered with *Den. Edda* as a parent: *Den. Wasy* (*speciosum* × *Edda*), *Dendrobium Edan Stripes* (*Edda* × *Ellen*) and *Dendrobium Eddaz Cool* (*Edda* × *Peter*).

*Dendrobium Wasy* seedlings show variation in the color and general shape of the flowers with some striping being apparent. While *Den. bifalce* has not strongly dominated in shape, it has improved the presentation of the flowers. Other unregistered crosses using *Den. Edda* with various dendrobium sections show the influence of *Den. bifalce* with the striping to varying degrees including solid lines. While intersectional hybrids predominantly between sections *Latouria* and *Dendrocoryne* produced some lovely novelty hybrids, another line of breeding was in progress with the aim of producing show-bench-style hybrids using section *Phalaenanth*.

Kevin McFarlane was noted for breeding novelty plants within many *Dendrobium* sections. He was a pioneer of striped dendrobiums, and one of his more popular crosses was *Den. Candy Stripe*, made in 1979 (Dianne McFarlane



× Margaret Joan Fell). The strength of the stripe and general shape of the flowers were promising, and *Den. Candy Stripe* was widely used as a parent with 64 first-generation crosses registered, 11 of which have been awarded. Further generations using *Den. Candy Stripe* and its progeny have improved the shape of the flowers and reduced some of the negative aspects found in earlier hybrids. However, even in a complex hybrid where *Den. bifalce* may only be an extremely small proportion of the hybrid, the striping is still evident. In most cases the flowers have little other resemblance to *Den. bifalce*. In *Dendrobium Burana Stripe* (*Thanaid Stripes* × *Chorthip Ohashi*) and *Dendrobium Killani Stripe* (*Candy Stripe* × *Doreen*), the parentage of *Den. bifalce* is around 3 and 6 percent, respectively, but the striping is still predominant.

Our latest flowering of a hybrid with *Den. bifalce* in the background is *Den. Burana Stripe* × *Dendrobium Burbank Candy* with 3.9 percent of this species. Even with this low contribution,

[13] An example of a *Den. Candy Stripe* cultivar of round shape with clean white background.

[14] This more stellate example of *Den. Candy Stripe* has golden undertones to the sepals and lip.

[15] *Den. Killani Stripe* 'Hew'

[16] *Den.* (*Burbank Candy* × *Burana Stripe*)

[17] *Den. Burana Stripe* 'Round'

the striping remains prominent. A further development was the use of *Den. bifalce* in striped, pansy-style dendrobiums. Crossing a striped *Den. Candy Stripe* with a well-shaped, pansy-type dendrobium of plain color resulted in some of the progeny flowering with striking, striped blooms.

The earliest *Den. bifalce* crosses caused excitement when they were found to breed interesting plants with striped flowers. While having a charm of their own and displaying characteristics of the species that may not have represented good shape in judging terms, they





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formed the building blocks for much future hybridizing. The early *Den. bifalce* hybrids eventually became the basis for developing well-shaped, award-winning hybrids.

This small orchid has had a significant influence in the development of striped dendrobiums. Sometimes, the contribution from a species is lost over time; however, *Den. bifalce* has carried its influence through into quite complex hybrids. It has also allowed other orchids to be dominant in shape and color, giving breeders the opportunity to create the striped, show-bench hybrids seen today. For an orchid with a small representation in the range of Australian orchids, *Den. bifalce* has played a large part in developing a new range of dendrobiums and may be said to have ‘earned its stripes’.

**Reference**

Cribb, P.J. 1986. A Revision of the Antelope and “Latouria” Dendrobiums. Reprinted from *Kew Bulletin* 38(2) 1983 and 41(3) 1986.

— Pam Porteous and her husband Trevor have been growing orchids together for 45 years. They grow a variety of orchids, largely vandas and dendrobiums from the *Spatulata* and *Dendrocoryne* sections but also some cattleyas, *phalaenopsis* and *paphiopedilums*. Their predominant interest is in Australasian orchids (those from Australia and surrounds) and they are members of the Australasian Orchid Society (Queensland Kabi Group which



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meets in Bald Hills, Qld). Her husband has been an AOC, NMQOC and ANOS judge for many years but she became a judge with all three groups more recently about ten years ago. Part of the requirements for the ANOS judging course was to produce

an article and Pam chose to do hers on *Dendrobium bifalce* (email: portefam@optusnet.com.au).



# Spotted Vandas

ROBERT FUCHS





## FUCHS

GROWERS AND JUDGES alike consider clear, brilliant flower color to be a positive characteristic, but many orchids display interesting patterns of color, too. In vandaceous orchids, the color patterns of some ancestral species are characteristic of several breeding lines. Vanda growers recognize the windowpane or tessellated patterns in many *Vanda coerulea* hybrids, and the two-tone color arrangement typical of *Vanda sanderiana*. But where do the spots come from in many modern vanda hybrids, including the orchids formerly known as ascocendas?

Today, there are many beautiful spotted vandas displaying gorgeous patterns of dark-red markings on bright-yellow flowers. But in the early 1970s, they were something of a novelty, although spotted vandas have been with us since the earliest hybrids made in Europe in the early 20th century. One species, *Vanda tricolor*, is the ancestor of nearly all the spotted hybrids in collections today.

*Vanda tricolor* is native in Java and Bali in Indonesia. The fragrant white flowers are variously spotted with reddish-brown or burgundy and typically have good-to-heavy substance. From 1903 through 2018, there were more than 130 hybrids registered with it as one parent. Several of these hybrids are important building blocks in later vanda hybridizing.

Two of the earliest hybrid vandas have *V. tricolor* as a parent. Both of these hybrids were made in Europe and registered in 1919: *Vanda* Gilbert Triboulet (*tricolor* × *coerulea*) and *Vanda* Tatzeri (*sanderiana* × *tricolor*). One or the other, if not both, of these crosses appears in the genealogy of most vanda hybrids. Another species, *Vanda luzonica*, can produce spotted flowers, and this plant, crossed with *V. Gilbert Triboulet*, produces *Vanda Faustii*, another ancestral cross to many of today's vandaceous hybrids. This hybrid was registered in 1934, also in Europe. Look closely at many *V. sanderiana* cultivars: the two-tone pattern often includes some spotting on the petals and dorsal sepal. So the sources of spotting in modern hybrids are not mysterious at all...they are right in front of us in several of the ancestral species.

If you examine the pedigrees of many modern spotted vandas (particularly the former ascocendas), several common ancestors become obvious. One is Oscar Kirsch's cross *Vanda* Betsy Sumner (1949), a cross of *V. Faustii* × *V. sanderiana*. Although one cultivar of this cross received an AOS award ('Prince' HCC/AOS) in 1959, we have no image or description of the



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AWARD ARCHIVES

flowers so we cannot be sure if they were spotted. But *V. Betsy Sumner* appears in the pedigrees of nearly all spotted hybrids today.

In fact, one of the earliest awarded spotted crosses was *Vanda* (aka *Ascda.*) *Tropicana*, which is *V. Betsy Sumner* × *Vanda* (aka *Asctm.*) *curvifolia*. The cross was made in Hawaii by Fusao Sorayama and registered in 1966. The cultivar 'Spotto Sidran' AM/AOS was recognized in 1972. The flowers were described as having "rich raspberry spots and blotches on cream-colored background." Another cultivar, 'Makaliko' HCC/AOS, also awarded in 1972, had "spotted orange flowers." Among the 10 AOS-awarded cultivars of *V. Tropicana*, most were described as having patterned flowers, not necessarily spotted. But *V. Tropicana* seems a bit of a dead end, at least with respect to further hybridizing. Thirty F<sub>1</sub> hybrids are registered with it as one parent, but almost none of

- [1] *V. Blue Eyes* 'David Made It' HCC/AOS; grower: Sharon and David Garrett. Photograph courtesy of Wes Newton.
- [2] *V. tricolor* 'Lynn Cook' AM/AOS; grower: Lynn Cook.
- [3] *V. Gilbert Triboulet* 'Orchid Whisperer' AM/AOS; grower: Carlos Ochoa.
- [4] *V. Tropicana* 'Spotto Sidran' AM/AOS; grower: Claire Sidran.

them have progeny.

These hybrids were made in Hawaii. Meanwhile, some Thai growers were experimenting with new crosses and one of them, *Vanda* (*Ascda.*) *Guo Chia Long*, registered in 1970, would prove an important parent in breeding spotted vandas. This is a cross of *V. Memoria Madame Praner* and *Vanda* (*Ascda.*) *Yip Sum Wah*. On the vanda parent side, the breeding is fairly typical of large-flowered vandas at the time, and *V. tricolor* does not appear in the pedigree. Two ancestors,



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*Vanda* Waipuna and *Vanda* Eisenhower, apparently had the occasional spotted cultivars. But it is the *V. Yip Sum Wah* lineage that includes a number of spotted ancestors, including *V. Betsy Sumner* as one grandparent. *Vanda* Yip Sum Wah is one of the most awarded orchids in AOS records, so we have a lot of flower descriptions, and more than a few cultivars of *V. Yip Sum Wah* had spotted flowers. In fact, the description for ‘Furumizo’ HCC/AOS says the awarded plant had “28 reddish-orange flowers with darker spots; typical *Ascda. Yip Sum Wah*.”

We cannot know if Colonel Patamakon, the originator of *V. Guo Chia Long*, used a spotted Yip Sum Wah when he crossed it with *Vanda* Memoria Madame Praner, but it is likely that he did. If judges in Hawaii, where ‘Furumizo’ was awarded, described the spotted flowers as “typical,” then it is probably safe to presume that there were spotted Yip Sum Wahs in Thailand, too.

One particular cultivar of *V. Guo Chia Long* so impressed the Thais that it was mericloned, and, in 1991, ‘Spotty’ was recognized with a JC/AOS and, later, an AM/AOS. The JC/AOS flowers were described as having “striking color contrast between coral base color and deep red spots.”

*Vanda* Guo Chia Long proved to be a more prolific and successful parent than *V. Tropicana*. We used it as a parent in more than 20 crosses registered since 1993, and a number of these hybrids have received AOS recognition and have themselves become parents of successful hybrids. Other hybridizers have used it as well.

The first hybrid we made with Guo Chia Long ‘Spotty’ AM/AOS was *Vanda* (*Ascda.*) Golden Spots, with *Vanda* (*Ascda.*) Medasand as the other parent, in 1992. We had high hopes but germination was poor. Another, registered in 1993, was *Vanda* (*Ascda.*) Fuchs Baby Doll, with *Vanda* (*Ascda.*) Gold Buttons as the other parent. Twelve cultivars of Fuchs Baby Doll have received AOS awards, and the AOS also granted an AQ/AOS to this cross in 1996.

Another interesting hybrid, registered by W.W. Goodale Moir in 1961, is *Vanda* (*Ascda.*) Portia Doolittle, a cross with *Vanda testacea* to *Vanda lamellata*. Two cultivars of *V. Portia Doolittle* have been awarded, and both are described as having spotted flowers.

In 1994, we registered *Vanda* (*Ascda.*) Fuchs Serval (Fuchs Sunshine × Guo Chia Long). Three cultivars were recognized by



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the AOS, and all three were spotted.

*Vanda* (*Ascda.*) Fuchs Spotted Cat, which is *Vanda* (*Ascda.*) Fuchs Gold crossed with Guo Chia Long, was registered in 1996. Six cultivars were awarded in the USA, and one in Europe.

About the same time, Jack Majewski of Clearwater, Florida, registered *Vanda* (*Ascda.*) Memoria Brad Majewski, a cross of Guo Chia Long and *Vanda* (*Ascda.*) Norma Majewski. This hybrid received five AOS flower-quality awards and an

AQ/AOS, noting the “blood red spots” on the flowers.

In 1997, we registered two of our most successful spotted hybrids: *Vanda* (*Ascda.*) Crownfox Golden Dawn (Fuchs Harvest Moon × Guo Chia Long) and *Vanda* (*Ascda.*) Ken Kone (*merrillii* × Guo Chia Long). Combined, cultivars of these two hybrids have received 17 AOS flower-quality awards and several additional awards from other organizations.

To date, *V. Guo Chia Long* appears as



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a parent in 81  $F_1$  crosses. Most of these are vandas, but a number of intergeneric registrations appear as well. And a large proportion (almost 60 percent) of these hybrids have had AOS (or other organizations) awards granted to one or more cultivars.

Among the most recognized intergeneric crosses are *Aeridovanda* (*Chtra.*) Dodie Briskey and *Aranda* Razzmatazz. *Aeridovanda* Dodie Briskey is a cross of *Aerides lawrenceae* × Guo Chia Long. We registered this cross in 2000 and there have been 10 AOS awards to cultivars of it. All have been spotted with flower color ranging from cream with raspberry spots ('Hayden' AM/AOS) to orange or apricot with pumpkin-orange spots ('Crownfox' AM/AOS).

*Aranda* Razzmatazz (*Aranda* Khaw Phaik Suan × *V.* Guo Chia Long) has been recognized with eight awards from the AOS, and all the described flowers are spotted. The pedigree for this hybrid includes some other sources of spotting including both ancestral *Arachnis* species and our familiar *V.* Betsy Sumner five generations back. The originator of the cross is unknown, but Jack Majewski registered it in 1998, and the flowers of his awarded cultivar 'Norma's Delight' HCC/AOS are described as "canary yellow with blood red spots".

A recent intergeneric cross with Guo Chia Long as a parent is *Vandaenopsis* Captain George Loutraris. This is a hybrid of *Phalaenopsis hygrophila* [syn. *Vandopsis parishii*] and *V.* Guo Chia Long. The originator of the hybrid is unknown, but we found it in Thailand last year. It is interesting with waxy bright-yellow flowers, which are heavily spotted with dark-red markings.

There are other spotted hybrids without Guo Chia Long in the pedigree. One that has produced several stunning spotted cultivars is *Vanda* (*Ascda.*) Suksamran Spots, registered in Thailand in 1987. Two cultivars, 'Suni' AM/AOS and 'Connect the Dots' AM/AOS, display gorgeous yellow flowers evenly dotted with red spots. Although the pedigree of this hybrid is, at first glance, similar to that of many other vandas, if you go back five generations you find *V.* Betsy Sumner and *Vanda* Gertrude Miyamoto. One of Gertrude's grandparents is *Vanda* Memoria T. Iwasaki, which is a cross of *Vanda dearei* × *V. tricolor*. *Vanda* Suksamran Spots appears as a parent in 38  $F_1$  crosses, and many of the hybrid progeny have had awards.

What happens when we cross



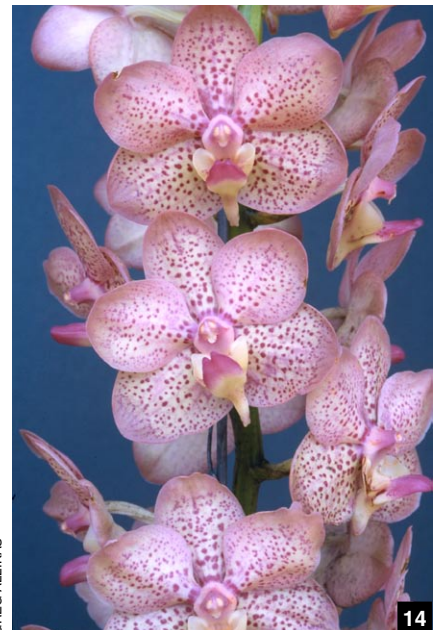
DONALD WILSON



GREG ALLIKAS



GREG ALLIKAS



GREG ALLIKAS



LARRY JOHNSON

- [5] *V.* Guo Chia Long 'Spotty' AM/AOS; grower: Muses' Tropic 1, Inc.
- [6] *V.* Crownfox Golden Spots 'Crownfox' AM/AOS; grower: R.F. Orchids, Inc.
- [7] *V.* Fuchs Baby Doll 'Redland Spots' AM/AOS; grower: R. F. Orchids, Inc.
- [8] *V.* Portia Doolittle 'Orchid Acres' AM/AOS; grower: Orchid Acres, Inc.
- [9] *V.* Fuchs Serval 'Mt. Vernon' HCC/AOS; grower: Russell Vernon.
- [10] *V.* Fuchs Spotted Cat 'Kirk' AM/AOS; grower: Kirk Hoo.
- [11] *V.* Memoria Brad Majewski 'Mabel' AM/AOS; grower: Jack and Norma Majewski.
- [12] *V.* Crownfox Gold Dawn 'Miramar' AM/AOS; grower: Miramar Orchids.
- [13] *V.* Ken Kone 'Crownfox Spots' AM/AOS; grower: R.F. Orchids, Inc.
- [14] *Aeridovanda* Dodie Briskey 'Hayden' AM/AOS; grower: Thomas G. Coffey.
- [15] *Aeridovanda* Dodie Briskey 'Peddler's Sunset' AM/AOS; grower: Victor Fowler.



Guo Chia Long with Suksamran Spots? Someone did; the originator of this hybrid, registered as *Vanda* (*Ascda.*) Chia Spots, is unknown, but both of the awarded cultivars are spotted.

Many of the orchid hybrids listed above would, under the pre-2012 nomenclature, be considered ascocendas, the intergeneric crosses of *Vanda* × *Ascocentrum*. Since 2012, all the ascocentrum species have moved to *Vanda*, so these hybrids now all appear in the lists as *Vanda*. It takes a little sleuthing to separate the crosses that include the former ascocentrum species from the ones that do not to examine hybrids that are the result of crossing one or the other of the spotted ancestors with vandas. There are many examples of these crosses, using either Guo Chia Long or Suksamran Spots with “pure” vandas.

One of the most interesting and notable hybrids is *Vanda* Kulwadee Fragrance, a cross of Guo Chia Long with *Vanda* Gordon Dillon, registered by Sujit Suththawas in Thailand, in 2004. *Vanda* Gordon Dillon is a classic large-flowered vanda with many awards and progeny. Most of the pedigree looks like classic vanda breeding with large components of both *V. sanderiana* and *V. coerulea*, but if you trace it back five generations you find *V. Tazeri* (*sanderiana* × *tricolor*) and *Vanda* Manila (*sanderiana* × *luzonica*). Both of these early hybrids contribute spotting to their progeny, and, of course, *V. sanderiana* itself has a slight influence on spotting as well. Several awarded cultivars of *V. Gordon Dillon* exhibited spotted patterns, and perhaps the best-known example is *V. Gordon Dillon* ‘Lea’ AM/AOS. The award description reads, in part, “flowers white with intense grape-violet spotting.”

*Vanda* Kulwadee Fragrance has been recognized several times by the AOS and also a number of times in Brazil. The award descriptions, where available, tell us that the flowers are heavily spotted, usually grape-purple on a lighter background. The recently awarded ‘Crownfox’ AM/AOS is a good example: “flowers cream; sepals and petals overlaid purple-grape spots.”

Kultana Orchids in Thailand crossed Suksamran Spots with Gordon Dillon, and the hybrid was registered as *Vanda* Mario Vega Solorzano in 2016. One cultivar, ‘Mario-Chalazo’ AM/AOS, was described as having “flowers base color creamy white; dorsal sepal and petals, blushed dark purple, heavily spotted and blotched darker purple.” Three other cultivars were recognized in Brazil. We have no



16 LEWIS ELLSWORTH



17 GREG ALLIKAS



18 TOM KULIGOWSKI



19 AOS AWARD ARCHIVES



20 TOM KULIGOWSKI

descriptions but the photos show similar flowers with purple markings. The distinct spot patterns are more muted with the spots coalescing into larger blotches. This is recent; we will have to keep an eye on future recognition for this cross.

So the spotting influence seems to diminish or dilute with additional

- [16] *Aranda* Razmatazz ‘Norma’s Delight’ HCC/AOS; grower: Jack and Norma Majewski.
- [17] *Vdnp.* Captain George Loutraris ‘Irene’; grower: R.F. Orchids, Inc.
- [18] *V.* Suksamran Spots ‘Connect the Dots’ AM/AOS; grower: R.F. Orchids, Inc.
- [19] *V.* Chia Spots ‘Irma’ HCC/AOS; grower: Orlando Diaz Quirindongo.
- [20] *V.* Kulwadee Fragrance ‘Crownfox’ AM/AOS; grower: R.F. Orchids, Inc.
- [21] *V.* Mario Vega Solorzano ‘Mario-Chalazo’ AM/AOS; grower: Vera Saenz.
- [22] *V.* Meg Laughlin ‘Ponce’ HCC/AOS; grower: Eugenio Rivera, MD.
- [23] *V.* Many Mahalos ‘Maui Spots’ AM/AOS; grower: Terry Aitken.
- [24] *V.* Jungle Lord ‘Leopard’ HCC/AOS; grower: Sunshine Orchids of Maui.
- [25] *V.* Jungle Lord ‘Chad’s Yellow Spots’ AM/AOS; grower: Chad Whetstone.



hybridization, at least with respect to breeding with large-flowered “classic” vandas. Hybrids with some percentage of *V. curvifolia* — particularly through *V. Yip Sum Wah* — appear to breed spotted progeny more readily. Note that *V. curvifolia* itself is not spotted; the flowers are concolor red to red-orange. But when crossed with large-flowered vandas, some spotting patterns appear and carry through several generations of hybridizing. *Vanda curvifolia* does appear in the pedigree of *V. Suksamran Spots*, but it is five generations back and through its *Vanda Meda Arnold* — not *Yip Sum Wah* — ancestor. This is a cross of *curvifolia* × *Rothschildiana*, so the strong influence of *V. coerulea* is evident in the flower descriptions of the awarded *Meda Arnold* cultivars; most are described as “tessellated” rather than “spotted.”

Does *V. tricolor* play any part in more modern hybrids? In 1995, Motes registered *Vanda Meg Laughlin*, a cross of *Vanda Motes Honeybun* × *V. tricolor*. Six cultivars have been awarded by AOS, and the descriptions of four specifically include a mention of spotted flowers. *Vanda Meg Laughlin* appears in the records as a parent of two hybrids, *Vanda Many Mahalos* (× *Agatha Motes*) and *Vanda Jungle Lord* (× *Motes Goldpiece*). Both these hybrids have awarded cultivars, and, in both cases, the awarded cultivars have spotted flowers. Interestingly, the color palette is quite variable. For *V. Jungle Lord* ‘Chad’s Yellow Spots’ AM/AOS, the description indicates yellow flowers with burgundy spots, and, for ‘Leopard’ HCC/AOS, the flowers are purple with dark purple spots. Although there are many hybrids registered in the past decade or two, none seem to have been used in further breeding so this may be a dead end.

Another source of spotting in some crosses is *V. luzonica*. As noted, this species appears early in the hybridizing records as a parent of both *Vanda Boschii* and *V. Faustii*, both registered in Europe in the early 20th century. Both these hybrids figure in the pedigrees of many modern vanda hybrids. But *V. luzonica* itself does not have a major footprint in the breeding records; through April 2020, there were 71 F<sub>1</sub> hybrids listed with *V. luzonica* as a parent, but only a handful have any “legs” in the records, either as parents in further hybridizing or AOS award recognition. A few crosses through the years have been recognized. One, *Vanda Loke* (*lamellata* × *luzonica*) has AOS recognition for nine cultivars, but none is described as having spotted flowers. Generally, the color



JORGE ENRIQUE CESPEDES TRIGUEROS



ROSS LEACH



AOS AWARD ARCHIVES

patterns have resembled the *V. lamellata* parent.

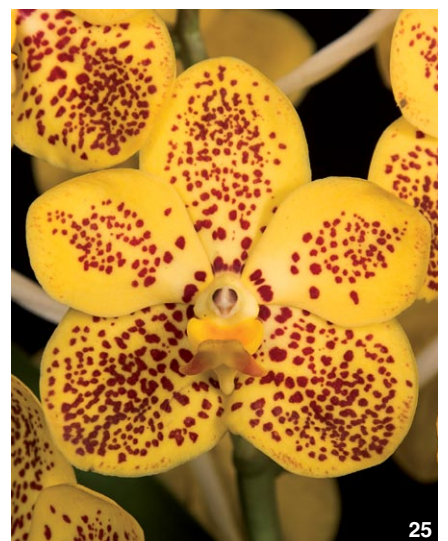
In 2007, we registered *Vanda (Ascda.) Fat Tuesday*, the hybrid of *Guo Chia Long* with *V. luzonica*. Seven cultivars (all spotted) have been recognized by AOS, and the cross received an Award of Distinction (AD/AOS) “Granted for unique spot pattern; distal smaller spots separated from larger central spots.”

In 1988, Bill Thoms registered *Papilionanda Cindy Banks*, a cross of *Papilionanda Mimi Palmer* × *V. luzonica*, and this hybrid produced several spotted cultivars and received an AQ/AOS in 1994. The description for this award noted the spotting pattern on all the submitted 12 cultivars. Two of the AQ plants received individual flower quality awards, ‘Carolyn’ AM/AOS and ‘Bill’s Choice’ AM/AOS.

Looking at the award records, we find that *Pda. Mimi Palmer* (*Tan Chay Yan* × *Vanda tessellata*) has itself produced several spotted cultivars, including the popular meristem ‘Tea Boon Hian’ HCC/AOS, and a number of its progeny also bloom with spotted flowers. But where does the spotting come from in this line of breeding? It turns out that some cultivars of *Vanda insignis* have spotted flowers, too, although this species has not been a major player in vanda breeding. It is a grandparent of *Pda. Tan Chay*



FRED RINDLISBACHER



KAY CLARK



Yan. However, in the time since Thoms registered *Pda.* Cindy Banks, a number of interesting *Pda.* Mimi Palmer hybrids have gained some recognition. Not all of these orchids have spotted flowers; some have patterns more similar to the ones seen in *V. tessellata* and its hybrids (*Pda.* Mimi Palmer is a *V. tessellata* hybrid), but some of them do and they are interesting.

*Papilionanda* Batram (Mimi Palmer × *V. densioniana*) has a number of awarded cultivars. Two of them include a mention of spots in the award description: ‘Crownfox’ AM/AOS and ‘Adkins’ Aroma Ace’ AM/AOS. Both are described as having reddish spots on a “butterscotch” background. *Papilionanda* Tim Brooks (*Vanda* Barbara Hanck × Mimi Palmer) blooms with red-spotted, yellow flowers. One cultivar has been recognized, ‘Spotted Leopard’ AM/AOS. For the record, *V.* Barbara Hanck typically blooms with red-spotted yellow or white flowers and one parent is *V.* Suksamran Spots.

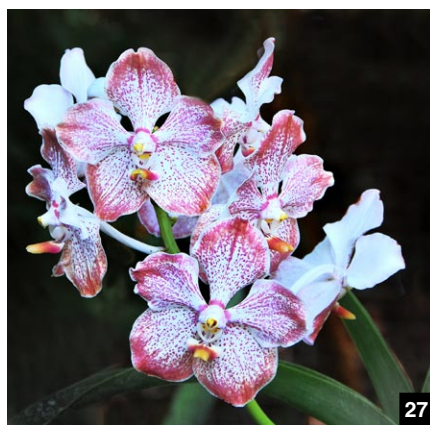
We registered *Papilionanda* Omar Padron in 2011. This is a cross of *Vanda* Robert’s Delight × *Pda.* Mimi Palmer, and some of the plants bloomed with purple-spotted flowers. The beautiful cultivar ‘Galaxy’ has been meristemmed and added to our catalog. Banjong Orchids registered *Papilionanda* Ben Fragrance in 2015, and five cultivars of this hybrid (Mimi Palmer × *Vanda* Memoria Thianchai) have AOS awards, several of them with spotted flowers. ‘Redland Sunglow’ AM/AOS is a bright-yellow flower with deep-red spots.

We had long believed that *V.* Guo Chia Long was the breakthrough ancestor of many of our modern spotted hybrids, but the research actually points to the Yip Sum Wah side of the pedigree; that is the line that includes *V. tricolor* and *V. luzonica*, both sources of spotted flowers in vandaceous breeding. Except for *V. sanderiana*, there are no spotted ancestors on the other side of the pedigree, *V.* Memoria Madame Praner, although this is almost certainly the source of the yellow background color of many of the most spectacular spotted “ascocendas.”

There is one interesting spotted hybrid, *Vanda* First and Last, without any *V. curvifolia* ancestry. This is a cross of *Vanda* Fuchs Delight × *V. tricolor*, registered in 1994 by Dorothy and Lawrence Schweitzer. *Vanda* Gordon Dillon is one parent of *V.* Fuchs Delight, and we know that some cultivars of it are spotted, although the colors are more blue- and grape-purple rather than the yellow–orange–red palette of the hybrids with *V. curvifolia* (Yip Sum Wah and Guo



ERNESTO CANOSSA  
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PETER ARROW  
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GREG ALLIKAS  
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GREG ALLIKAS  
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GLENN BARFIELD  
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MALCOLM MCCORQUODALE  
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Chia Long) ancestry. But every one of the seven awarded cultivars of *V.* First and Last is described as having white flowers with purple or maroon spotting. So the *V. tricolor* influence is strong, not only for spotting but for the base flower color as well.

— Robert Fuchs is the President of R.F. Orchids, Inc. in Homestead, Florida. He is also the current president of the American Orchid Society and has been involved in

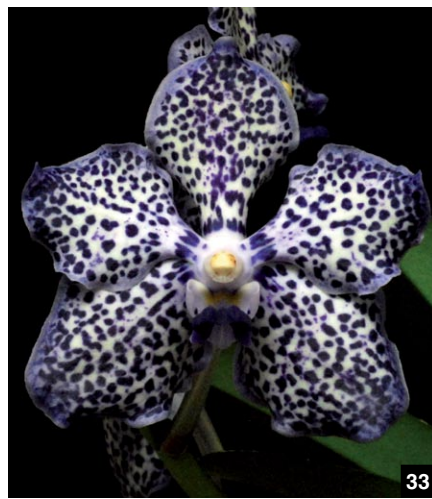
orchids for many decades. 28100 SW 182 Avenue, Homestead, Florida 33030 (email: info@rforchids.com; www.rforchids.com).





NICK NICKERSON

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GREG ALLIKAS

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TOM KULIGOWSKI

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GREG ALLIKAS

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GREG ALLIKAS

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GREG ALLIKAS

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WES NEWTON

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- [26] *V. Fat Tuesday* 'Crownfox Jester' AM/AOS; grower: R.F. Orchids, Inc.
- [27] *V. Fat Tuesday* 'Joan's Instant Winner' AM/AOS; grower: Joan Gregory.
- [28] *V. Fat Tuesday* 'Vanessa' HCC/AOS; grower: R.F. Orchids Inc.
- [29] *V. Fat Tuesday* 'Crownfox Spice' HCC/AOS; grower: R.F. Orchids, Inc.
- [30] *Pda. Mimi Palmer* 'Matt' HCC/AOS; grower: Island Sun Orchids.
- [31] *Pda. Mimi Palmer* 'Tea Boon Hian' HCC/AOS; grower: Judith Neufeld.
- [32] *Pda. Batram* 'Crownfox' AM/AOS; grower: R.F. Orchids, Inc.
- [33] *Pda. Omar Padron* 'Galaxy'; grower: R.F. Orchids, Inc.
- [34] *V. Barbara Hanck* 'Sally York' HCC/AOS; grower: Tom Coffey.
- [35] *Pda Tim Brooks* 'Spotted Leopard' AM/AOS; grower: Tom Coffey.
- [36] *Pda. Ben Fragrance* 'Redland Sunflow' AM/AOS; grower: R.F. Orchids, Inc.
- [37] *Pda. Batram* 'Adkins Aroma Ace' AM/AOS; grower: Adkins Orchids, Inc.
- [38] *V. First and Last* 'Redland Festival' HCC/AOS; grower: Motes Orchids.
- [39] *V. Lek* 'Garrett's Little Lu' AM/AOS; exhibitor: Sharon and David Garrett.



# Harlequin Phalaenopsis

Uneven palettes of designs

ESTEBAN (STEVE) GONZALEZ-COSTA





HARLEQUIN PHALAENOPSIS HAVE come a long way in the last 30 years. I remember clearly the roar they created as they came to market in the early 1990s. As a hobbyist at the time, I will never forget the comments of fellow local orchid society members and the judging community as I participated in shows in the Twin Cities. Many of the members thought that the patterns were cool, but I listened to many of the judges cringe as they assessed the flowers. In the early days of breeding harlequins, many plants were disqualified from judging because color break patterns were thought to be the expressions of viruses (Harper 2004) or the form was poor.

Regardless, two words stayed with me: irregular and blotches. Of course, it was always about color, just manifested in a different way. Adapting and accepting a change is difficult for many of us, particularly those who were used to uniformly colored white or pink flowers, which are, of course, beautiful, enticing, and classic in every way. The only “wow” deviations in the 1980s that I recall that we routinely saw were pink flowers with pure white lips and small spots. Fine spotting usually was regular in size and as a pattern or concentric all around the flower. The only other electrifying trends then were the vibrant candy-stripe developments, particularly in multiflora and medium-sized phalaenopsis flowers. Outside of that realm were the novelty species that were just gaining in popularity among growers.

GOING HARLEQUIN Looking back at how all of this happened, it is just the story of a series of fortunate mutations. It is so ironic that what gave life to these new patterns were mostly *Phalaenopsis gigantea*, *lueddemanniana*, *amboinensis*, along with *hieroglyphica* and *fasciata* combined with the classic larger *Phalaenopsis amabilis* and *aphrodite* hybrids. As the story goes, in 1983, a Taiwan breeder, Brothers Nursery, combined two faintly spotted yellows in the hopes of creating a more intensely spotted yellow (Chadwick 2017, Chadwick, pers. comm.). They registered *Phalaenopsis* Golden Peoker (Misty Green × Liu Tuen-Shen) in 1983. The initial result, which probably was representative of the mass population, was not that far from the popular and emerging patterns of French spot phalaenopsis from the 1980s.

This can be seen in *Phal.* Golden Peoker ‘Brother’, which was awarded an AM/AOS in 1991. The spots were fuchsia/magenta, and, looking at the



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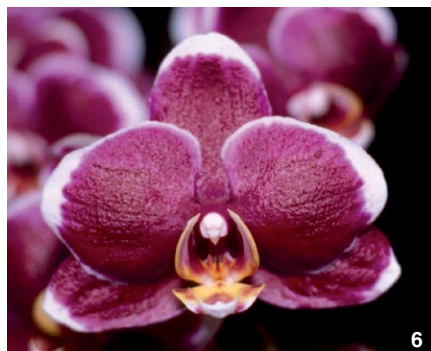
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AOS AWARD ARCHIVES



RICKI JOSWICK



DON TURPIN



LARRY JOHNSON

- [1] *Phal.* Peoker Beauty ‘Bredren’ JC/AOS (Salu Peoker × Diamond Beauty). Photograph by Greg Allikas.
- [2] *Phal.* Golden Peoker ‘Brother’ AM/AOS (Misty Green × Liu Tuen-Shen)
- [3] *Phal.* Golden Peoker ‘Nan-Cho’ AM/AOS
- [4] *Phal.* Golden Peoker ‘S.J.’ HCC/AOS
- [5] *Phal.* Ever Spring Prince ‘Cover Girl’ HCC/AOS (Golden Peoker × Taisuco Beauty)
- [6] *Phal.* Ever Spring Prince ‘TF’ AM/AOS
- [7] *Phal.* Ever-spring King ‘Panda’ JC/AOS (Chih Shang’s Stripes × Golden Peoker)



award photo, they are irregular but seem concentric, and they become not as defined or more blurry towards the inner area of the segments. The substance is described as heavy, which was typical of the thick — hard as cardboard — hybrids of that time. The mutations (mutated chromosomes) that later were awarded came from the mericlone of *Phal.* Golden Peoker 'Brother' AM/AOS and resulted in increased pigmentation levels compared to the original flowers as the plants continued to mutate from there to the clone 'Ever-spring' and beyond (Stock 2005). From here, Ever Spring Orchid Nursery earned a number of awards that stemmed from *Phal.* Golden Peoker 'Ever-spring' JC/AOS micropagation that included 'Nan-Cho' AM/AOS and 'S.J.' HCC/AOS. The clone 'Ever-spring' JC is cited in the AOS award description as being the origin of harlequin spotting, calling it "a new line producing progeny with clownish spots, blotches and occasional near-solid colorations of unusual red and purple hues." Although 'Ever-spring' brings in more and larger saturated spotting that coalesces at the sepal base and outer tips, the obvious larger blotches of color become truly present in 'S.J.' HCC/AOS and are enlarged in the clone 'Nan-Cho' AM/AOS. The huge, concord-grape purple blotches of *Phal.* Golden Peoker 'Nan-Cho' must have presented Ever Spring Orchid Nursery a forward path of breeding possibilities. *Phalaenopsis* Golden Peoker 'Nan-Cho' is considered the most reliable clone producing harlequin patterns in the next generation (Harper 2004). It is interesting to note that cooler temperatures during bud formation allow buds to develop into darker, saturated spots on the flowers (Mountford 2003), although from a genetic standpoint, this theory is discounted (Stock 2005). Another interesting observation is that more harlequin-like patterns seem to develop when using a harlequin as a pod parent. Indeed, originally, it was reported that when the harlequin is used as the pod parent in first-generation hybrids, 79% of the time, progeny results in harlequin patterns, and this becomes a more even 50% in second-generation breeding (Chen et al. 2004). As I looked through 30 years of hybrids, this was true for most of those that had award recognition.

The range of influence that harlequin breeding has had on *phalaenopsis* is far reaching. We can almost combine the areas of success and influence by discussing how they relate to the most existing or evolved types of *phalaenopsis*



CHARLES ROWDEN



CHARLES ROWDEN

flowers. The first of three areas of true harlequin breeding came from the original core French Spot breeding or near-species hybrids on a white background that then returned to yellow-spotted flower hybrids. *Phalaenopsis* Ever-spring King 'Panda' JC/AOS shows such dark-red, almost-black color saturation on thick flowers that recurved slightly. Indeed, although beautiful, shape asymmetry and lack of flat flowers afflicted these core harlequin flowers.

A typical example of these thick, dark flowers can be seen in *Phal.* Ever-spring King 'Panda' JC/AOS (Chih Shang's Stripes × Golden Peoker) awarded in 1999 that shows how color became so suffused to be almost solid. Flowers are thick and sometimes lacked segment and overall symmetry. Color saturation was intense and could have been described as beyond just blotches. Lower flower count affected initial hybrids because of their species background. One species, *Phal. fasciata*, is described as contributing the darker red-brown barring that is expressed as clumps (Harper 2004).

Getting harlequin results from hybrids was not always that easy, as it was said that if the *Phal.* Golden Peoker 'BL' parent was used, about one-third resulted in harlequin flowers. If 'ES' used, few resulted in harlequin flowers. *Phalaenopsis* Ever Spring Prince was registered by Ever Spring Orchid Nursery in 1997. Eventually, some awarded flowers to this grex would break the barriers and achieve over 6–8 flowers per inflorescence and over 3 in. (8 cm) of horizontal natural spread. Flower count was originally low because of the species background in many of these patterned flowers, but eventually speculative breeders improved the number of flowers on an inflorescence by having the foresight to breed using large, white-flowered *phalaenopsis* (Harper 2004).

Coming back to the core blotchy



JERRY BRANDENBURG

- [8] *Phal.* FANGtastic Don Herman 'Montclair' HCC/AOS (Golden Peoker × Norman's Mist)
- [9] *Phal.* FANGtastic Don Herman 'Mentor' 77 HCC/AOS
- [10] *Phal.* FANGtastic Don Herman 'Liby Blair' 77 HCC/AOS
- [11] *Phal.* Chian Xen Pearl 'Penny' AM/AOS (Ching Hua Spring × Nobby's Pink Lady)
- [12] *Phal.* Chian Xen Mammon 'C. X. 111' AM/AOS (Chian Xen Pearl × Mount Beauty)
- [13] *Phal.* Brother Love Carnival AM/AOS (Golden Peoker × Taisuco Windan)



spots that defined the original harlequin phalaenopsis, the shapes were greatly improved in *Phal.* Ever Spring Prince 'Cover Girl' HCC/AOS and 'Panda' JC/AOS. Most of the irregular, blotchy breeding results seem to continue in breeding with large white flowers to improve size and shape.

The next generation, in the early 2000s, as seen with *Phalaenopsis* FANGtastic Don Herman (Golden Peoker × Norman's Mist), would create flatter white flowers that hovered around 4 in. (10 cm) and had a thinner, heavy-to-moderate substance. Markings as seen in awards were highly irregular and could have been anywhere from more saturated in their purple-to-magenta blotches or less saturated. Another attractive, awarded *Phal.* FANGtastic Don Herman was 'Libby Blair' HCC/AOS, which had no inherited harlequin characteristics whatsoever!

Some influential parents for improved further breeding included *Phalaenopsis* Chian Xen Diamond (Golden Peoker × Judy Valentine), Chian Xen Pearl (Ching Hua Spring × Nobby's Pink Lady), and Chian Xen Mammon (Chian Xen Pearl × Mount Beauty). All these were registered by Fu-Liang Huang in the early 2000s and would produce recognizable harlequins, many of which were awarded over time. The most important contribution from this generation was how they would continue to become the next building block for the now "classic" blotchy harlequin flower pattern.

*Phalaenopsis* Ever Spring Prince shows us how progeny can split into opposite patterns that range from either the mostly saturated color or the distal edge pattern that eventually became known as feathering. Indeed, if you look at the original flower of *Phal.* Golden Peoker 'Ever-spring' JC/AOS, you can see the toothy appearance pointing inward on the dorsal and lateral sepal tips. Could it have been that this was noticed and then bred further, eventually manifesting itself into the deeper jagged edging that we know as feathering?

In 2015, the beautifully flushed, spotted, and patterned feathered phalaenopsis reached a summit with *Phal.* Ever Spring Prince 'Wilda Faulk' HCC/AOS and Younghome New York 'KA01801' AM/AOS (Fullers Maiden × Lucia Lip). Recently, we have seen flowers that provide a further color-saturated level of feathering. Plants available in the market that show this bolder level of jagged feathering can be seen 20 years after this cross was registered in 1997.



TECK HIA

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MALCOLM MCCORQUODALE

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Today, jagged feathering patterns are seen next to pink petal flushes or pink fine-to-coarse coalescing spotting and all the way to the broad, jagged raspberry-red patterns on pure-white backgrounds as seen in *Phalaenopsis* Arakaki Spring Fairy 'Hilltop's Miss Drea' HCC/AOS (Arakaki Black Eagle × Taisuco Kochdian). These impressive flowers from recent awards have or exceed a larger 4½ in. (11 cm) natural spread.

**STRIPES, STIPPLING, AND CANDY STRIPES** It would be second nature to take the irregular patterns from *Phal.* Golden Peoker clones and immediately try and match them up to see what would result when combining them to smaller-branching and medium-sized, candy-striped phalaenopsis. Two of the most recognized and still charming results of this breeding are *Phalaenopsis* Formosa Cranberry (Sogo Yenlin × Happy Mark) and *Phalaenopsis* Taida King's Caroline (Ever Spring King × Ho's Little Caroline). Registered respectively in 2006 and 2007, both have *Phal.* Ever Spring King in their background. *Phalaenopsis* Formosa Cranberry 'L-D 168' HCC/AOS is in bloom on my dining room table as I write in February 2020. It never ceases to stun with its deep-burgundy, irregular pattern (bright cranberry to me) over a pure white sepal and petal base color. Grown by my wife, this branching multiflora, miniature gem takes so little space on a light shelf. There are also forms that have more linear spotting patterns that coalesce purples from hybrids made from more candy-stripe patterns.

*Phalaenopsis* Taida King Caroline is more irregularly striped than spotted in its markings. Some coalesce as they bleed into each other at the base of their sepals and petals. Recently, the clone 'Taida Little Zebra Va' was awarded with an AM/AOS and shows bigger, bolder, stronger coloration that intensified at the apices on a compact, miniature multiflora. Although only 10 flowers and four buds were counted, the award mentioned that it had two additional side branches present. There are also many examples of incredibly great and vibrant patterns in medium-sized and even larger, 3-in. (8-cm) –plus flowers.

The striping of *Phalaenopsis* Chian Xen Piano (Jiuhbao Victoria × Chian Xen Mammon) is truly unique. It is described as "sepals and petals crisp white, heavy, bold, broad rich purple stripes, centers largely white, picotee soft purple." The flowers are larger at 3¾ in. (9.6 cm) wide. Clearly, the coalescing of veining and



CHARLES ROWDEN



IRMA SALDANA



NANCY ROWE



JIEA SHANG PHOTOGRAPHY



BRYCON RINKE



ERIC HUNT



RICHARD NOEL

- [14] *Phal.* Ever Spring Prince 'Harlequin' HCC/AOS (Golden Peoker × Taisuco Beauty)
- [15] *Phal.* Chian Xen Pearl 'Caribe Splash' HCC/AOS (Ching Hua Spring × Nobby's Pink Lady)
- [16] *Phal.* Ever Spring Prince 'Wilda Faulk' HCC/AOS
- [17] *Phal.* Younghome New York 'KA01801' AM/AOS (Fuller's Maiden × Luchia Lip)
- [18] *Phal.* Ever Spring Prince 'Susan' HCC/AOS
- [19] *Phal.* Ruey Lih Beauty 'Ontario' HCC/AOS (Hsinying Lady × Formosa Rose)
- [20] *Phal.* Arakaki Spring Fairy 'Hilltop's Miss Drea' 78 HCC/AOS (Arakaki Black Eagle × Taisuco Kochdian)

purple-color saturation over a pure white background is shocking, even if it only involves two colors!

Going back to stripes and suffusions, I am impressed to see the harlequin roots in one of my favorite yellow-toned flowers, *Phalaenopsis*. KV Beauty '613' AM/AOS (Salu Peoker × Chih Shang's Stripes). As mentioned before, *Phal.* Golden Peoker is also pod parent itself to *Phalaenopsis* Yellow Peoker, which in turn is pod parent itself to *Phal.* Salu Peoker. Although KV Beauty is less harlequin in appearance, some flowers do exhibit more "strippling" and spotting along with the red or beet-





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- [21] *Phal.* The Pride of Ben Yu 'Ben Yu' AM/AOS (Minho Valentine x King Shiang's Beauty)
  - [22] *Phal.* Black Butterfly 'Orchis #8' AM/AOS (Golden Peoker x Taisuco Sweet)
  - [23] *Phal.* Champion Lightning (Mount Lip x New Angel)
  - [24] *Phal.* Jiuhbao Fairy 'Emma' HCC/AOS (Sogo Sofei x Jiuhbao Palentine)
  - [25] *Phal.* Tinny Beauty 'Curtis' Princess' (Happy Valentine x Ruey Lih Stripes)
  - [26] *Phal.* Yu Pin Dream Girl 'Sweet Dreams' AM/AOS (Brother Success x Yu Pin Lady)
  - [27] *Phal.* Ever-spring King 'T.F.' HCC/AOS (Chih Shang's Stripes x Golden Peoker)
  - [28] *Phal.* OX Happy Dancer 'Amanda' HCC/AOS (OX Spot Queen x OX Little King)
- [21–28] Courtesy of Greg Allikas



purple striping and tessellation that is commonly seen on this flower. Some of the best characteristics of *Phal.* KV Beauty is that as buds form with cooler temperatures in the winter, coloring is intense and these flowers last as long as 14 weeks!

Some other distinct, but more isolated patterns, have evolved over the last 10 years. A larger phalaenopsis that combines *Phal.* KV Charmer 'Zhen Yu #51' AM/AOS (Salu Peoker × Taida Pearl) has *Phal.* Golden Peoker on both sides of its background. The clone 'Zhen Yu #51' shows a beautiful shower of raspberry striping and spots spilling outward over a lemon-yellow base flower color. A recent and available hybrid that has bright-magenta flushes, stripes and spots and a dark-maroon-saturated lip on a bright yellow flower is *Phalaenopsis* Fangmei A Hot 'FM 5035' AM/AOS (Tai Lin Red Angel × Dou-dii Golden Princess). The awarded plant carried 17 flowers and eight buds on two branching inflorescences. The irregular patterns and coloring make an interesting flower.

Another irregular pattern on white flowers, which seems unique, is *Phalaenopsis* I-Hsin Sea Star 'Dajao' AM/AOS (Jiuhbao Red Rose × Jiuhbao Queen Diamond). The flower of 'Dajao' shows an interesting pattern described as "dorsal sepal covered with linearly arranged dark-burgundy spots, lateral sepals blotched dark burgundy, heavier on inferior half, light-burgundy veins marginally creating a nicely contrasting picotee." In this hybrid, the Golden Peoker background comes from the pollen parent side of *Phal.* Jiuhbao Queen Diamond, whose pollen parent is the *Phal.* Haur Jin Diamond, which was used extensively and successfully in harlequin breeding. Registered in 1999, *Phalaenopsis* Haur Jin Diamond had Golden Peoker as a pod parent according to its registration (Golden Peoker × Ching Her Buddha). Interestingly, the pod parent, *Phal.* Jiuhbao Red Rose, does not have any Golden Peoker or harlequin background, but one clone, *Phal.* Jiuhbao Red Rose 'Blooming Prosperity' AM-CCM/AOS shows harlequin-like patterns described as "explosive, saturated magenta blocks and sprinklings within magenta-feathered margins." With the background in *Phal.* Jiuhbao Red Rose coming from the great, large white and classic 1960s and 1970s California hybrids, the question is whether 'Blooming Prosperity' AM-CCM/AOS could have been another freak mutation like Golden Peoker?

Curiously, *Phal.* Golden Peoker



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MAURICE GARVEY



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CRAIG FLAHR



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JAMES OSEN



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DAVID GOULD



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IRMA SALDANA

started as an attempt to try to combine yellow phalaenopsis that would show bolder spotting. Twenty years after Golden Peoker, many beautiful harlequin blooms have returned in hybrids such as *Phalaenopsis* Brother Peoker Pass 'Woodedge' AM/AOS (Golden Peoker × Brother Passat) and *Phal.* Brother Peoker Pass 'Orchid Connection Best' AM/AOS. Both display bright butter or canary yellow with spots that are described as garnet or dark plum purple. 'Woodedge' AM/AOS has spotting throughout, although it coalesces toward the apex on the upper segments and has more coverage on the lower half of the lateral sepals. Breeding, again, one generation away from a *Phal.* Golden Peoker parent provides heavier substance and more Golden Peoker-shaped flowers.

Two interesting hybrids that conspir-

- [29] *Phal.* Formosa Cranberry 'L-D 168' HCC/AOS (Sogo Yenlin × Happy Mark)
- [30] *Phal.* Taida King's Caroline 'Little Zebra' AM/AOS
- [31] *Phal.* Taida King's Caroline 'Taida Little Zebra Va' AM/AOS
- [32] *Phal.* Chian Xen Piano 'CX 339' FCC/AOS
- [33] *Phal.* KV Beauty '613' AM/AOS (Salu Peoker × Chih Shang's Stripes)
- [34] *Phal.* KV Charmer 'Zhen Yu#51' AM/AOS
- [35] *Phal.* Fangmei A Hot 'FM 5035' AM/AOS
- [36] *Phal.* I-Hsin Sea Star 'Dajao' AM/AOS



ed to bring back beautiful yellow, blotchy-spotted harlequin flowers by using *Phal.* Golden Peoker from the pollen side were *Phalaenopsis* Sogo Pearl 'Lucky Star' AM/AOS (Sogo Manager × Golden Peoker) and *Phalaenopsis* Chiada Ziv 'HTM104 #51' AM/AOS (Sogo Lisa × Sunrise Red Peoker). All the clones that have burgundy or brown-red spotting of *Phal.* Sogo Pearl usually have a more central saturation of spotting. *Phalaenopsis* Chiada Ziv is more heavily mottled dark purple as seen in the clone 'HTM104 #51', which received an Award of Merit in 2010. These hybrids helped to increase the flower count to 7–10 flowers per inflorescence and have larger flowers that are typically around 3 in. (7–8 cm) and both often seem to permit branching.

Other yellow hybrids bring in strong patterns that are just, at the most, three or four generations removed from *Phal.* Golden Peoker. Some other noteworthy, above-average hybrids from the last 10 years are *Phalaenopsis* Lioulin Magic 'Julio David' AM/AOS (Sogo Golden × Tai-I Yellow Bird) and *Phalaenopsis* Lioulin Moon 'OX 1533', which achieved an FCC of 92 points in 2012 (Lioulin King × Lioulin Venus). Although not the largest flowers or with most on an inflorescence, *Phal.* Lioulin Magic 'Julio David' incorporates Golden Peoker and Haur Jin Diamond with other *Phalaenopsis venosa* hybrids in their background to provide a stunning, irregular oxblood and red-maroon spotting on a medium-yellow flower. When I wrote my AOS judging paper on the background behind large white phalaenopsis, which were a culmination of stellar genetics, in early 2013 and looked at where breeding would go in the future, I quickly was in awe of *Phal.* Lioulin Moon 'OX 1533' that combined in its pod parent (*Phal.* Lioulin King) the incredible white *Phal.* Sogo Yukidian with *Phalaenopsis* Shih Yi Diamond, which had mahogany blotches centrally but sacrifices some flower size, but gives a much better presentation from Sogo Yukidian. There are 8–9 flowers per inflorescence with branching stems measuring about 7.5 cm (3 in.) natural spread. This hybrid combines *Phal.* Golden Peoker back four generations with the culmination of large-white breeding from *Phal.* Sogo Yukidian. I can only imagine that in the near future breeders in Taiwan will return to improve the blotches breeding forward with stronger base color and patterns.

Recently, *Phalaenopsis* Crystal Surprise 'Cad's Solar Flare' AM/AOS (Lioulin Venus × LD's Bear Queen) was awarded



JEANNE STASER



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IRMA SALDANA



MALCOLM MCCORQUODALE



MONICA WALTHER



IRMA SALDANA



JAY NORRIS

at the Toronto Judging Center. It had 12 flowers on a multibranching inflorescence displaying irregular spotting: "golden yellow, randomly spotted dark raspberry, heavily blotched dark raspberry centrally." The Golden Peoker background comes from *Phal.* Lioulin Venus's pod parent

- [37] *Phal.* Brother Peoker Pass 'Orchid Konnection Best' AM/AOS
- [38] *Phal.* Brother Peoker Pass 'Woodedge' AM 80 (Golden Peoker × Brother Passat)
- [39] *Phal.* Sogo Pearl 'Evelyn Elliott' AM/AOS
- [40] *Phal.* Sogo Pearl 'Lucky Star' AM/AOS (Sogo Manager × Golden Peoker)
- [41] *Phal.* Chiada Ziv 'HTM104 #51' AM/AOS
- [42] *Phal.* Lioulin Magic 'Julio David' AM/AOS (Sogo Golden × Tai-I Yellow Bird)
- [43] *Phal.* Lioulin Moon 'OX 1533' FCC/AOS (Lioulin King × Lioulin Venus)
- [44] *Phal.* Crystal Surprise 'Cad's Solar Flare' AM/AOS
- [45] *Phal.* I-Hsin Pudding Puppy 'Paraiso Tropical' AM/AOS





- [46] *Phal.* Judy's Love 'Caroline' HCC/AOS (World Class x Black Rose)  
[47] *Phal.* Judy's Love 'Sarah McGabhann' AM/AOS  
[48] *Phal.* Tying Shin Fantastic World 'Diana' AM/AOS (Chian Xen Pearl x Timothy Christopher)  
[49] *Phal.* Jersey Girl Eileen 'Eileen's First' JC/AOS (Tai-I Yellow Bird x Eileen's First)  
[50] *Phal.* Tai-I Yellow Bird 'Crownfox' AM/AOS (Salu Peoker x Huar Jin Diamond)  
[51] *Phal.* Ruey Lih Beauty 'Ruey Lih' HCC/AOS  
[52] *Phal.* Taiwan Red Cat 'Amanda' JC/AOS (Taiwan Smith x Kun-Cheng)  
[46–52] Courtesy of Greg Allikas



*Phalaenopsis* Haur Jin Princess, but what is innovative that must have contributed to pattern and coloring was the estimated 25% *Phalaenopsis bellina* heritage. The award to 'Cad's Solar Flare' AM/AOS ends by describing that it has a pleasant fragrance.

Finally, I would like to mention a fabulous, irregularly blotched phalaenopsis that absolutely only has Golden Peoker once four generations back in its background, *Phalaenopsis* I-Hsin Pudding Puppy 'Paraiso Tropical' AM/AOS (I-Hsin Sponge Cake × Sogo Splendor), and does have a strong influence from *Phal. amboinensis*. *Phalaenopsis* Golden Peoker has *Phal. amboinensis* as a great-grandparent.

Just as *Phal.* Golden Peoker accelerated harlequin patterns in phalaenopsis into the 1990s, I would allude that the path could have been achieved through other breeding lines that include the same species and the Vacherot & Lecoufle and other French Spots breeding, much of which came from breeders in California in the 1960s and 1970s (Harper 2004).

**BIG LIP PHALAEOPSIS...THE NEW FRONTIER** As blooming combinations go, many of the original big lip hybrids (which have oversized lips as the name implies) were white or candy striped. Clearly, larger harlequin with white backgrounds were developed by breeding into standard, large-white phalaenopsis. So it was simple to simply just expand the large, irregular blotchy, harlequin patterns into the big (or broad) lip phalaenopsis being developed.

One of the first strikingly bold flowers to appear was *Phalaenopsis* Judy's Love 'Crownfox' AM/AOS (World Class × Black Rose), a third-generation Golden Peoker hybrid from the pollen parent *Phal.* Black Rose. Purple spotting coalesces in the center of the flower, moving from the inside to outside in a beautiful diminishing-size spot pattern. Another more candy striped or spotted hybrid is *Phal.* Lioulin Hot Lip 'CX 667' AM/AOS (Chian Xen Violin × Loulin Lovely Lip), which probably owes its pattern of a distal, pink flush to the more candy-stripe-like *Phal.* Chian Xen Violin pod parent. The blackberry purple spot pattern in 'CX 667' is irregular, but does coalesce centrally, manifesting itself more in the inner part of the broad lip. The large irregular spotting has to come from a more uniformly aligned candy-stripe past. In the big lip category, *Phal.* Lioulin Lovely Lip '#1' FCC/AOS, a product of *Phalaenopsis* Yu Pin Fireworks crossed with *Phalaenopsis* Chian Xen Piano, pulls



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KATIE PAYEUR



DOUG STANNARD

through strong a candy-stripe pattern that cascades on the flower segments of *Phal.* Yu Pin Fireworks and the strongly defined patterns from Chian Xen Piano to create a striking spot-stripe pattern that literally cascades out with larger burgundy-purple to successively smaller spots. Although the flowers are medium size, only around 3 in. (7.8 cm), and the lip is somewhat cupped, this miniplant displays a beautiful rounded, broader lip, which is more uncommon in this big lip phalaenopsis.

Another interesting, recently awarded hybrid is *Phalaenopsis* Star's Handlebar Mustache 'M242' AM/AOS (Yushan

- [53] *Phal.* Judy's Love 'Crownfox' AM/AOS
- [54] *Phal.* Lioulin Hot Lip 'CX 667' AM/AOS
- [55] *Phal.* Lioulin Lovely Lip '#1' FCC/AOS (Yu Pin Fireworks × Chian Xen Piano)
- [56] *Phal.* Star's Handlebar Mustache 'M242' AM/AOS
- [57] *Phal.* Lioulin R Lip 'Snookie' JC/AOS (Tying Shin Unicorn × Lioulin Pretty Lip)



Graceful × Yushan Mongo,) which features full, large 4½-in. (11.2-cm) flowers with irregular, smaller blotches, although with less spotting and an interesting open lip with side lobes that look like a handlebar mustache. Interestingly enough, along with the large white phalaenopsis background of this hybrid, size was not held back by the *Phalaenopsis equestris* and *Phalaenopsis stuartiana* makeup in its background.

Recently, another incredible flower was awarded with beautiful, irregular burgundy spotting. Although cupped, the flowers of *Phalaenopsis* Lioulin R Lip 'Snookie' JC/AOS (Tying Shin Unicorn × Lioulin Pretty Lip) show how saturated and bold an incredibly harlequin pattern can be on sepals, petals and an incredibly broad lip.

Indeed the craze and influence that *Phal.* Golden Peoker has imparted on the diversity of patterns and coloration is expansive and has influenced all lines of phalaenopsis breeding. In his article, Stock (2005), a Ph.D. geneticist, discusses the complexity of coloration and how color pigments merge to expand and completely cover the flower. He reports that all this is genetically present from the species ancestry in these hybrids. Indeed, we can see how this variability is what has always been really talked about and called "instability" in these flowers' mutations. What it really is about is how the small "more botanical species" came back to mutate and influence a never-ending palette of designs and patterns that was already present in their genetics.

The development of big lip phalaenopsis is just in its inception and there is much more that can be done. We can only imagine what the next 20 years might bring, not only with the introduction of beautiful colors and patterns on the "classic" and accepted lines of breeding, but with the next mutation or development in phalaenopsis that allows us to push forward. It is amazing how we can adapt and continue to expand our minds. Many of the original building-block phalaenopsis hybrids such as Golden Peoker, Salu Poker, Ever Spring Prince, *Phalaenopsis* Ever Spring Fairy, *Phalaenopsis* OX Black Jack, *Phalaenopsis* I-Hsin Black Jack, Chian Xen Diamond, Chian Xen Pearl, Haur Jin Princess and so many more are still routinely used in new harlequin breeding.

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[58] *Phal.* Golden Peoker 'Cat's Paw Magician' JC/AOS. In animals, chimaeras such as this are often called half-siders in reference to the clear genetic differences between the right and left halves of an individual. Is this the next hot trend in phalaenopsis — normal spotted flowers on one side and harlequin patterns on the other?

US Midwest and working as an international manager traveling Latin America over time has given him the opportunity to see plants in situ and meet many of the business and botanical experts in the Americas' orchid world over the last 40 years (email [stevegonzalez@live.com](mailto:stevegonzalez@live.com)).



## PRONUNCIATION GUIDE

Pronunciation of orchid names can be daunting for the novice and experienced grower alike. Presented below is a simplified pronunciation guide specific to the names found in this issue of *Orchids* magazine. An attempt has been made to represent each syllable using easily recognized sounds or words separated by hyphens and not standard phonetic symbols. Check out the Orchidist's Glossary on our website at <https://www.aos.org/orchids/orchidists-glossary.aspx>.

<i>aclandiae</i> (ak-LAND-ee-eye)	<i>fasciata</i> (fas-see-AY-ta)	<i>Spatulata</i> (spat-yew-LAY-ta)
<i>alaorii</i> (al-a-ORE-ee-eye)	<i>fimbriatum</i> (fim-bree-AY-tum)	<i>strobilii</i> (stroh-BEL-lee-eye)
<i>amabilis</i> (a-MAH-bil-lis)	<i>forbesii</i> (FORBS-ee-eye)	<i>subulifolia</i> (sub-yew-lih-FOL-ee-a)
<i>amboinensis</i> (am-boe-in-EN-sis)	<i>Fredclarkeara</i> (fred-klark-ARE-a)	<i>superbum</i> (soo-PER-bum)
<i>amethystoglossa</i> (am-eh-thiss-toe-GLOSS-a)	<i>gaskelliana</i> (gas-kell-ee-AY-na)	<i>tessellata</i> (tess-eil-LAY-ta)
<i>andicola</i> (an-DEE-koe-la)	<i>gigantea</i> (jye-GAN-tee-a)	<i>tessacea</i> (tess-TAY-see-a)
<i>aphrodite</i> (af-roh-DYE-tee)	<i>grandiflora</i> (grand-ee-FLOR-a)	<i>tetragonum</i> (teh-tra-GOH-num)
<i>Ascocenda</i> (as-koe-SEN-da)	<i>granulosa</i> (gran-yew-LOH-sa)	<i>tigrina</i> (tye-GRYE-na or tye-GREE-na)
<i>atroviolaceum</i> (at-roe-vye-oh-LAY-see-um)	<i>Guaríanthe</i> (gwar-ee-AN-thee)	<i>tigrinum</i> (tye-GRYE-num or tye-GREE-num)
<i>aurantiaca</i> (aw-ran-tee-AY-ka)	<i>guttata</i> (gut-TAY-ta)	<i>torta</i> (TORE-ta)
<i>barthiorum</i> (bar-thee-ORE-um)	<i>herrenhusanum</i> (hair-ren-hoos-AY-num)	<i>triangularis</i> (trye-ang-yew-LAIR-iss)
<i>bellatulum</i> (bell-LAT-yew-lum)	<i>hieroglyphica</i> (hye-roh-GLIF-ih-ka)	<i>tricolor</i> (TRYE-koll-ur)
<i>bicolor</i> (BYE-koll-ur)	<i>ignea</i> (IG-nee-a)	<i>tuxtlensis</i> (tuks-LEN-sis)
<i>bifalce</i> (bye-FAL-kay)	<i>infracta</i> (in-FRAK-ta)	<i>uniflora</i> (yew-nee-FLOR-a)
<i>bifalcis</i> (bye-FAL-kis)	<i>insignis</i> (in-SIG-niss)	<i>Vanda</i> (VAN-da)
<i>bigibbum</i> (BYE-gib-bum)	<i>intermedia</i> (in-ter-MEE-dee-a)	<i>veitchiana</i> (veech-ee-AY-na)
<i>Brassavola</i> (bra-SAH-vohl-a)	<i>ivaneae</i> (ee-VAN-ee-a)	<i>velutina</i> (vel-yew-TEE-na)
<i>Brassocattleya</i> (brass-oh-KAT-lee-a)	<i>kingianum</i> (king-ee-AY-num)	<i>warscewiczii</i> (war-shuh-VITZ-ee-eye)
<i>breviracemosum</i> (brev-ee-ray-see-MOH-sum)	<i>Laelia</i> (LAY-lee-a)	<i>warszewiczii</i> (war-shuh-VITZ-ee-eye)
<i>Bulbophyllum</i> (bulb-oh-FIL-lum)	<i>lamellata</i> (lam-el-LAY-ta)	<i>xanthina</i> (zan-THEE-na)
<i>Callista</i> (kal-LISS-ta)	<i>Latouria</i> (la-TOOR-ee-a)	<i>yungasensis</i> (yung-a-SEN-sis)
<i>calocodon</i> (kal-oh-KOE-don)	<i>Leioanthum</i> (lye-oh-AN-thum)	
<i>canaliculatum</i> (kan-a-lik-yew-LAY-tum)	<i>leopoldii</i> (lee-oh-POLD-ee-eye)	
Catasetinae (kat-a-SET-ih-nee)	<i>loddigesii</i> (lod-ih-JESS-ee-eye)	
<i>Catasetum</i> (kat-a-SEE-tum)	<i>lueddemanniana</i> (loo-deh-man-nee-AY-na)	
<i>Cattleya</i> (KAT-lee-a)	<i>luzonica</i> (loo-ZON-eh-ka)	
<i>Cattlianthe</i> (kat-lee-AN-thee)	<i>macrophyllum</i> (mak-roh-FILL-lum)	
<i>caudata</i> (kaw-DAY-ta)	<i>macrura</i> (mak-RUR-a)	
<i>chaparensis</i> (shap-a-REN-sis)	<i>Masdevallia</i> (maz-deh-VAHL-ee-a)	
<i>chloropterum</i> (klor-OP-ter-um)	<i>milleri</i> (MIL-ler-eye or MIL-ler-ee)	
<i>Clowesetum</i> (klow-SEE-tum)	<i>Mormodes</i> (more-MOH-deez)	
<i>Clowesia</i> (KLOW-zee-a)	<i>Myrmecocattleya</i> (mir-meh-koh-KAT-lee-a)	
<i>coccinea</i> (kok-SIN-ee-a)	<i>Myrmecophila</i> (mir-meh-KOF-ih-la)	
<i>coerulea</i> (see-ROO-lee-a)	<i>nodosa</i> (no-DOH-sa)	
<i>cooperi</i> (KOO-per-eye or KOO-per-ee)	<i>oncidiochilum</i> (on-sid-ee-oh-KYE-lum)	
<i>curvifolia</i> (kur-vee-FOL-lee-a)	<i>Papilionanda</i> (pap-ee-lee-oh-NAN-da)	
<i>Cycnoches</i> (SIK-no-keez)	<i>Papilionanthe</i> (pap-ee-lee-oh-NAN-thee)	
<i>datura</i> (da-TOUR-a)	<i>Papiopedilum</i> (paff-ee-oh-PED-ih-lum)	
<i>decumana</i> (deh-kew-MAY-na)	<i>Phalaenanthe</i> (fail-en-AN-thee)	
<i>Dendrobium</i> (den-DROH-bee-um)	<i>Phalaenopsis</i> (fail-en-OP-sis)	
<i>Dendrocoryne</i> (den-droh-KORE-eye-nee)	<i>pileatum</i> (pil-ee-AY-tum)	
<i>denisoniana</i> (den-is-son-ee-AY-na)	<i>purpurata</i> (per-per-AY-ta)	
<i>denticulatum</i> (den-tik-yew-LAY-tum)	<i>Rhynchoaeliocattleya</i> (rink-oh-lay-lee-oh-KAT-lee-ah)	
<i>discolor</i> (DISS-koll-ur)	<i>rolfeana</i> (rolf-AY-na)	
<i>Doritis</i> (doh-RYE-tiss)	<i>salmonia</i> (sal-MOH-nay-ah)	
<i>Dowiana</i> (dow-ee-AY-na)	<i>sanderiana</i> (san-der-ee-AY-na)	
<i>esalqueana</i> (eh-sal-key-AY-na)	<i>Sayeria</i> (say-ER-ee-a)	
<i>expansum</i> (eks-PAN-sum)	<i>schilleriana</i> (shil-ler-ee-AY-na)	
	<i>schofieldiana</i> (skoh-field-ee-AY-na)	
	<i>sinuata</i> (syne-yew-AY-ta)	





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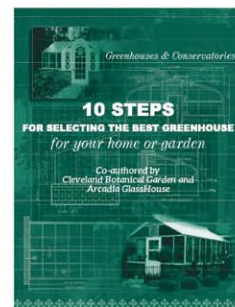


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