

# ORCHIDS

THE BULLETIN OF THE AMERICAN ORCHID SOCIETY

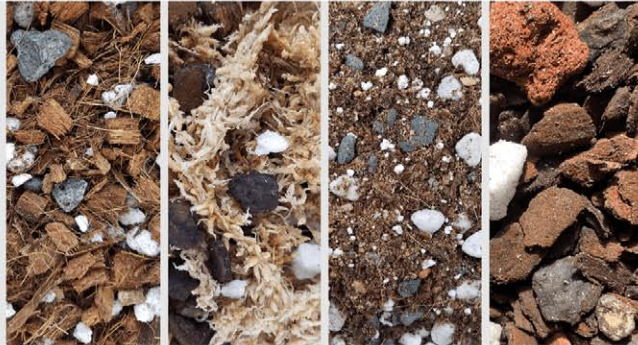
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# ORCHIDS

The Bulletin of the American Orchid Society

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## FRONT COVER

There is a common misconception that orchid displays must involve large numbers of plants. On the contrary, a simple arrangement of a few plants, even as few as four or five, can result in a breathtaking display. In this month's issue, Sergey and Elena Skoropad share with us a few of their elegant, small displays.

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## 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>erythrostylum</i> (eh-rith-roh-STYE-lum)	<i>Phalaenopsis</i> (fail-en-OP-sis)
<i>acuensis</i> (ah-sue-EN-sis)	<i>escalerensis</i> (ess-kal-er-EN-sis)	<i>philipinense</i> (fill-ip-pin-EN-see)
<i>Aerangis</i> (air-RANG-iss)	<i>Euglossa</i> (yew-GLOSS-sa)	<i>Phragmipedium</i> (frag-mih-PEED-ee-um)
<i>Aerides</i> (air-EE-deez)	<i>falcata</i> (fal-KAY-ta)	<i>Pleione</i> (plye-OH-nee)
<i>alagoensis</i> (al-a-goh-EN-sis)	<i>falcatum</i> (fal-KAY-tum)	<i>Pleurothallopsis</i> (plur-oh-thal-LOP-sis)
<i>alboviride</i> (al-boh-VEER-ih-dee)	<i>farmeri</i> (FAR-mer-eye)	<i>Polychilos</i> (pol-lee-KYE-lohs)
<i>aloifolium</i> (ah-loh-ih-FOL-ee-um)	<i>floribundum</i> (flor-ih-BUN-dum)	<i>Psychopsis</i> (sye-KOP-sis)
<i>Angraecum</i> ((an-GRAY-kum)	<i>Galeopetalum</i> (gal-ee-oh-PET-a-lum)	<i>pygmaea</i> (PIG-mee-a)
<i>Appendicula</i> (ap-en-DIK-yew-la)	<i>Gastrochilus</i> (gas-troh-KYE-luss)	<i>Rechingerara</i> (rek-in-ger-ARE-a)
<i>arcuigera</i> (ar-KWIH-ger-ah)	<i>gigantea</i> (jye-GAN-tee-a)	<i>Renanthera</i> (ren-AN-ther a)
<i>armeniacum</i> (ar-men-ee-AY-kum)	<i>gigantifolium</i> (gye-gan-tee-FOLL-ee-um)	<i>Rhyncattleanthe</i> (rin-kat-lee-AN-thee)
<i>aurantiaca</i> (aw-ran-tee-AY-ka)	<i>goeringii</i> (gur-RING-ee-eye)	<i>Rhyncholaeliocattleya</i> (rink-oh-lay-lee-oh-KAT-lee-a)
<i>besseae</i> (BESS-ee-eye)	<i>grande</i> (GRAN-dee)	<i>Rhynchorides</i> (rink-oh-RYE-deez)
<i>bicolor</i> (BYE-kull-ur)	<i>grandiflora</i> (grand-ih-FLOR-a)	<i>Rhynchostele</i> (rink-oh-STEE-lee)
<i>biloba</i> (bye-LOH-ba)	<i>Guarianthe</i> (war-ee-AN-thee )	<i>Rhynchostylis</i> (rink-oh-STYE-liss)
<i>biloba</i> (bye-LOH-ba)	<i>hirsutissimum</i> (her-soo-TISS-ih-mum)	<i>roezlii</i> (ROZE-lee-eye)
<i>Blettila</i> (bleh-TILL-la)	<i>hookerianum</i> (hook-er-ee-AY-num)	<i>rosea</i> (ROH-zee-ah)
<i>Brassia</i> (BRASS-ee-ah)	<i>ignea</i> (IG-nee-a)	<i>Rossioglossum</i> (ross-ee-oh-GLOSS-sum)
<i>Brassidium</i> (brass-SID-ee-um)	<i>insigne</i> (in-SIG-nee)	<i>rothschildianum</i> (roth-shild-ee-AY-num)
<i>Brevipedunculata</i> (breh-vee-pee-dunk-yew-LAY-ta)	<i>Isabelia</i> (iz-ah-BELL-ee-ah)	<i>rutidobulbon</i> (roo-tee-doh-BUL-bon)
<i>Bulbophyllum</i> (bulb-oh-FILL-lum)	<i>Laelia</i> (LAY-lee-a)	<i>sanderæ</i> (SAN-der-ee)
<i>Calanthe</i> (kal-AN-thee)	<i>Laeliocatarrhon</i> (lay-lee-oh-kat-ARE-thron)	<i>sanderianum</i> (san-der-ee-AY-num)
<i>callosum</i> (kal-LOH-sum)	<i>lamellata</i> (lam-el-AY-ta)	<i>sargentianum</i> (sar-gen-tee-AY-num)
<i>calocodon</i> (kal-oh-KOH-don)	<i>lasianthera</i> (lass-ee-AN-ther-ah)	<i>schilleriana</i> (shil-ler-ee-AY-na)
<i>canaliculatum</i> (kan-a-lik-yew-LAY-tum)	<i>lawrenceae</i> (law-RENT-see or LAW-rent-see)	<i>Schomburgkia</i> (schom-BURG-kee-a)
Catasetinae (kat-a-SET-ih-nee)	<i>lehmannii</i> (lay-MANN-ee-eye)	<i>septrum</i> (SEP-trum)
<i>Catasetum</i> (kat-a-SEE-tum)	<i>Lepanthes</i> (leh-PAN-theez)	<i>sesquipedale</i> (ses-kwi-peh-DAY-lee)
<i>Cattleya</i> (KAT-lee-a)	<i>loddigesii</i> (lod-ih-GEEZ-ee-eye)	<i>simia</i> (SIM-ee-a)
<i>Cattlianthe</i> (kat-lee-AN-thee)	<i>longicalcar</i> (lon-gee-KAL-kar)	<i>sinense</i> (sin-EN-see)
<i>cernua</i> (SIR-new-ah)	<i>longifolium</i> (lon-gee-FOL-lee-um)	<i>skinneri</i> (SKIN-ner-eye)
<i>claptonense</i> (klap-tone-EN-see)	<i>lowianum</i> (low-ee-AY-num)	<i>Sophronia</i> (sof-PHRONE-ee-a)
<i>coccinea</i> (kok-SIN-ee-a)	<i>lowii</i> (LOW-ee-eye)	<i>Sophronitis</i> (sof-roh-NYE-tiss)
<i>coelestis</i> (see-LESS-tiss)	<i>lueddemanniana</i> (loo-deh-man-ee-AY-nah)	<i>sprucei</i> (SPROO-see)
<i>Compartmentia</i> (kom-pah-RET-ee-ah)	<i>Lycaste</i> (lye-KASS-tee)	<i>Stanhopea</i> (stan-HOPE-a)
<i>cordigera</i> (kore-DIJ-er-a)	<i>Macroclinium</i> (mak-roh-KLIN-ee-um)	<i>suave</i> (SWAV-ay)
<i>cruentum</i> (kroo-EN-tum)	<i>madidum</i> (MAD-ih-dum)	<i>sukhakulii</i> (soo-ka-KOOL-ee-eye)
Cymbidieae (sim-BID-ee-ee)	<i>malipoense</i> (mal-ee-poe-EN-see)	<i>tigrina</i> (tye-GRYE-na)
<i>Cymbidium</i> (sym-BID-ee-um)	<i>mantiqueirae</i> (man-tee-KWARE-ee)	<i>tigrinum</i> (tye-GRYE-num)
<i>Cypripedium</i> (sip-rih-PEED-ee-um)	<i>Masdevallia</i> (mas-deh-VAIL-lee-a)	<i>Tolumnia</i> (tol-LUM-nee-ah)
<i>Cyrtochilum</i> (sir-toe-KYE-lum)	<i>Maxillaria</i> (maks-ill-LARE-ee-a)	<i>tracyanum</i> (tray-see-AY-num)
Cyrtopodiinae (sir-toe-pode-EE-ee-nee)	Maxillariinae (maks-ill-lair-EE-ee-nee)	<i>Trichopilia</i> (trik-oh-PEE-lee-a)
<i>delenatii</i> (del-en-AT-ee-eye)	<i>micranthum</i> (mye-KRAN-thum)	<i>undulata</i> (un-dew-LAY-ta)
<i>Dendrobium</i> (den-DROH-bee-um)	<i>Miltoniopsis</i> (mil-tone-ee-OP-sis)	<i>Vandachostylis</i> (van-da-koh-STYE-liss)
<i>Dendrochilum</i> (den-droh-KYE-lum)	<i>Myrmecophila</i> (mir-meh-KOFF-ih-lah)	<i>villosiventris</i> (vill-loh-sih-VEN-triss)
<i>devonianum</i> (dee-vone-ee-AY-num)	<i>navarroi</i> (na-VAH-O-roh-ee)	<i>violacea</i> (vye-oh-LAY-see-a)
<i>dichroma</i> (DYE-kroh-ma)	<i>Oberonia</i> (oh-ber-OH-nee-ah)	<i>virginalis</i> (vir-gin-AY-liss)
<i>Dinema</i> (dye-NEE-ma)	<i>Odontoglossum</i> (oh-don-toh-GLOS-sum)	<i>wardii</i> (WARD-ee-eye)
<i>Dracula</i> (DRAK-yew-la)	<i>Oncidium</i> (on-SID-ee-um)	<i>wentworthianum</i> (went-worth-ee-AY-num)
<i>eburneum</i> (ee-BURN-ee-um)	<i>pachyphyllum</i> (pak-ee-FILL-lum)	<i>werklei</i> (VERK-la-ee)
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<i>erythraeum</i> (err-ih-THRAY-um)		

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## PRESIDENT'S MESSAGE

ONE OF THE AOS's largest committees is the Judging Committee or "JC" as it is commonly known. This committee is made up of all of the individual judging center chairs plus a limited number of appointed members. At its meetings, the JC approves any changes to the "Judging Handbook," votes to elevate judges that have met the criteria for promotion to their next level and at the fall meeting selects the winners of the special annual awards. The Species Identification Task Force (SITF), the National Training Coordinator and the Handbook Task Force (HTF) are all under the direction of the JC. This is one busy committee!

This month we hear about the JC from chair, Taylor Slaughter.

"The AOS Judging Committee is responsible for overseeing the judging activities of our nearly 600 judges. All of these women and men are "out there" judging our plants at monthly judgings at 26 centers and 10 additional sites, as well as approximately 200 shows at venues from north to south and east to west in the United States, as well as Puerto Rico, Canada, Central and South America, the Caribbean, Kenya, and Taiwan, just to name a few parts of the world. All of this activity resulted in nearly 2,200 awards in 2018! All of our judges have gone through at least six years of training to reach accreditation, attend judgings in centers and shows, and attend extra educational events at their own expense. This is no small gift to the orchid community. To assist in this endeavor, the JC has several subcommittees and task forces. The SITF verifies the identities of species (including varieties and formae) awarded for the first time so that our records are correct. The HTF works on the "Judging Handbook," which sets the conditions for establishing and running judging centers and the activities of the judges and judges' conduct. The next year will see new and exciting educational opportunities for judges through the new National Training Coordinator's programs, and there will be, over the next couple of years, a new program for supporting orchid judging. To accomplish these tasks, the JC meets at least twice a year, at the semiannual members' meetings. These meetings allow all of the center chairs to gather and discuss issues that concern all judges. It is also at these meetings that the JC selects the winners of the Special Annual Awards and submits them to the trustees for approval. The JC encourages all members to exhibit their plants at shows and monthly judgings, and, if they

are interested, to become involved in the judging system. Overall, the prospects for orchid judging look bright and we expect to continue to support your presentation of orchids for judging at shows and monthly judgings. Thank you to all of our exhibitors who make our job such a delight."

In addition to Taylor as the chair of the committee, David Edgley serves as its vice-chair and Abu Salleh as its secretary.

The month of April is a busy month with lots of society shows. Not only are exhibitors getting ready to exhibit their plants, but the judges in your area are ready to help your society have a great experience. Hope all of you have a wonderful time and a very successful show.

Our next AOS Members' Meeting, October 16–20, 2019, in Homestead, Florida, will be in conjunction with the East Everglades Orchid Society show. More details will be forthcoming as they are all worked out, but you can mark your calendars now. I hope you will come to our next Members' Meeting and see what fun we have even as all of the committees and trustees are working hard to make the American Orchid Society better for their members.



SARAH HURDEL

Taylor Slaughter, AOS Judging Committee Chair.

Until next time, happy growing!  
— Susan Wedegaertner, President  
(email: [susan@aos.org](mailto:susan@aos.org)).

### COMING ATTRACTIONS — WEBINARS



WHEN: **April 9, 2019 8:30PM EDT**  
WHAT: *Greenhouse Chat (Orchid Q&A)*  
WHO: Ron McHatton  
REGISTER AT: [www.aos.org/orchids/webinars.aspx](http://www.aos.org/orchids/webinars.aspx)

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**April 18, 2019** at 8:30 pm EDT — The Culture of Habenarias with James Heilig, PhD, AOS Trustee and accredited judge.

**May 7, 2019** at 8:30 pm EDT — Greenhouse Chat (Orchid Q&A) with Ron McHatton, AOS Chief Education and Science Officer.

**May 16, 2019** at 8:30 pm EDT — Asian Cymbidiums with Ken Jacobsen, Pacific Central Judging Center.

**July 11, 2019** at 8:30pm EDT — The Story of White Cattleyas with Jean Allen-Ikeson, National Training Coordinator and Chair of the AOS Editorial Board.

For webinar announcements and login information check [www.aos.org/orchids/webinars.aspx](http://www.aos.org/orchids/webinars.aspx). Webinar announcements are posted to Facebook, Instagram and in the AOS Corner of your affiliated society's newsletter.



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# April: The Month of Curves

By Thomas Miranda

I DO NOT know about you, but personally, I love a winding road. Sinuous paths in well-planned gardens often lead us to thrilling surprises; hidden vistas, secret garden rooms and sheltered specimen plants in full glorious bloom. My enjoyment is heightened when a display or landscape gradually reveals its mysteries like a new paramour. The erotic curves of our existence are echoed in every orchid flower as well as in the delicious anticipation of the culmination of long-ripening buds. This is a joy few outside the horticultural world get to experience.



Thomas Miranda

No matter how straight and narrow a trajectory your life may be on, the universe inevitably throws some curves at us. Sometimes they are awesome, sometimes sad, sometimes they are treacherous, sometimes they can derail us temporarily, but they are necessary and in the end, progressive. This month, when orchid growth commences in most of the Northern Hemisphere, it reminds us that our cultural pathways shift and turn with the seasons. While we do not know exactly what is ahead for us in our collections, we do know that if a few basics are followed, our collections will thrill us with their incredible potentialities.

**DO NOT BE BLINDSIDED** As the days lengthen and temperatures rise this month, there is a lot of renewed activity in your collection. The springtime months are the most effective time to divide and repot most orchids. You simply must observe the signs your plants are giving you now and act accordingly. Most cattleyas, dendrobiums, cymbidiums and so many others are initiating new roots and tender new growths. These roots are searching for substrate to attach to. Pay close attention to the directionality of your rhizomes and repot plants so that new growths and roots have adequate space to establish. Make sure you have all the supplies you need before you begin.

**ROUNDED EDGES** Whether your pots are round or square, be sure to have an adequate supply of clean and new containers in an array of sizes. If you have been successful over the past year, you will need larger pots than you

did last year. More than likely you will need more potting mix as well. Well-cared-for collections tend to grow in size and girth. Invite a new friend, perhaps a new beginner from the orchid society, over to help you repot and share some divisions with them. Often it will keep you plants manageable, without hurting their blooming potential. Who knows, this simple act of sharing might inspire passion in a new orchid grower.

**ARCHING SPIKES** Now that many of the spring orchid shows are behind us, and we are generally entering a period of vegetative growth for most orchids, many growers choose to detach spent flower spikes from their plants. Leaving old spikes can be somewhat of an energetic drain on certain orchids. Removing unsightly spent inflorescences gives your collection a tidier look. But, beware that you are not removing spikes that may rebloom such as those of psychopsis and certain phalaenopsis (especially species). Most growers choose to cut hybrid phalaenopsis spikes down to a few inches. This often allows the plant to rest but will allow it to rebloom from that spike in subsequent years.

**THE EARTH AWAKENS** Many of our native species are also emerging from their winter dormancies. If you have cypripediums, bletillas or calanthes that you have planted, or even wild populations of other types on your property, find and mark them now so that they will not be trampled by errant gardeners or youngsters cavorting amongst the crocus and daffodils. Most of all, enjoy the succession of amazing flowers returning as old friends in that secluded curve of your secret garden.



TERRY BOTTOM

This *Prosthechea radiata* is just beginning to break new growth and will benefit from repotting. Even if the long roots need to be trimmed to fit into a new pot, the roots will quickly branch.

— Tom Miranda has been working professionally with orchids for over three decades. He is an AOS accredited judge and is the chairman of the American Orchid Society's Conservation Committee. He recently coauthored *The Book of Orchids: A life-size guide to 600 species from around the world* (email: [biophilialk@gmail.com](mailto:biophilialk@gmail.com)).

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- Presentation language will be English
- Submissions accepted now through April 30, 2019

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*Sylvia strigari*



*Eriopsis wercklei*

Text by Grettel Salguero and Franco Pupulin/Watercolor by Sylvia Strigari

Tribe Cymbidieae  
 Sutribe Eriopsidinae  
 Genus *Eriopsis* Lindley

*Eriopsis wercklei* Schltr., Repert. Sp. Nov. Regni Veg. 16: 447. 1920.

TYPE: Costa Rica, San José, Corillo (Carrillo), 300 m, *Wercklé s.n.* (holotype: B, destroyed; lectotype: designated by Pupulin, 2010, tracing of Schlechter's drawing of the holotype, AMES 24701).

An epiphytic large, erect *herb* ca. 50 cm tall. *Roots* white to brownish, velamentous, smooth, to 5 mm in diameter. *Pseudobulbs* congested, robust, semispherical to pyriform, surface deeply rugose, with scarios sheaths, often dark to blackish, 5–16 cm long, ca. 4 cm in diameter, 2–3 leaved near the apex. *Leaves* oblong-elliptic, subpetiolate, coriaceous, plicate-veined, up to 48 cm long and 7.5–8.0 cm wide. *Inflorescence* racemose, lateral, from the base of the pseudobulb, erect or nearly so, subdensely many flowered, shorter than or more commonly exceeding the leaves, up to 50–60 cm long; peduncle provided with several remote, short, deltoids sheaths. *Flowers* medium-sized, glabrous, showy, on a slender pedicellate ovary, yellow or orange with brownish or purplish-margined sepals and petals, the lip whitish with purple spots, the column yellow from a green base. *Dorsal sepal* elliptic oblong or ovate-oblong, concave, obtuse, about 1.5 cm long and 0.8 cm wide. *Lateral sepals* similar to the dorsal sepal but a little shorter and broader, ovate-oblong, slightly oblique. *Lip* suborbicular-ovate or reniform-ovate, concave, distinctly trilobed, a little shorter but much broader than the other segments, about 1.2 cm long and 1.7 cm wide when expanded; lateral lobes ample, incurved, broadly semiovate; midlobe small, retuse or bilobed; disc provided with a large callus at the base consisting of a pair of extrorse, broad, semirhombic lamellae within which is a pair of narrow, fleshy, serrulate lamellae and with a pair of more or less separate, smaller, verrucose-dentiform calli in front. *Column* terete, arcuate, subclavate above, with a short foot, about 1 cm long. *Anther cap* operculate, suborbicular, two-celled.

*Pollinia* four in two pairs of different size, dorsiventrally superposed, with a well-developed viscidium, subquadrate, hyaline, on a short tegular stipe.

The genus *Eriopsis* is a group of epiphytic, lithophytic or terrestrial orchids first described by the English Botanist John Lindley in 1847. Nevertheless, specimens of *Eriopsis* had been collected long before, probably in the late 1770s and remained unidentified until recently (Romero et al. 2015). The type species is *Eriopsis biloba* described from a plant without locality, supposed to be of “western” origin (Lindley 1847). The name *Eriopsis* is derived from the name of another genus of Asian orchids, *Eria* Lindl., and the greek *opsis*, “having the appearance of,” in reference to the vegetative similarity of the two genera (Lindley 1947). The species of this genus are distributed in tropical America from Costa Rica to Peru and Brazil (Ortiz 1991).

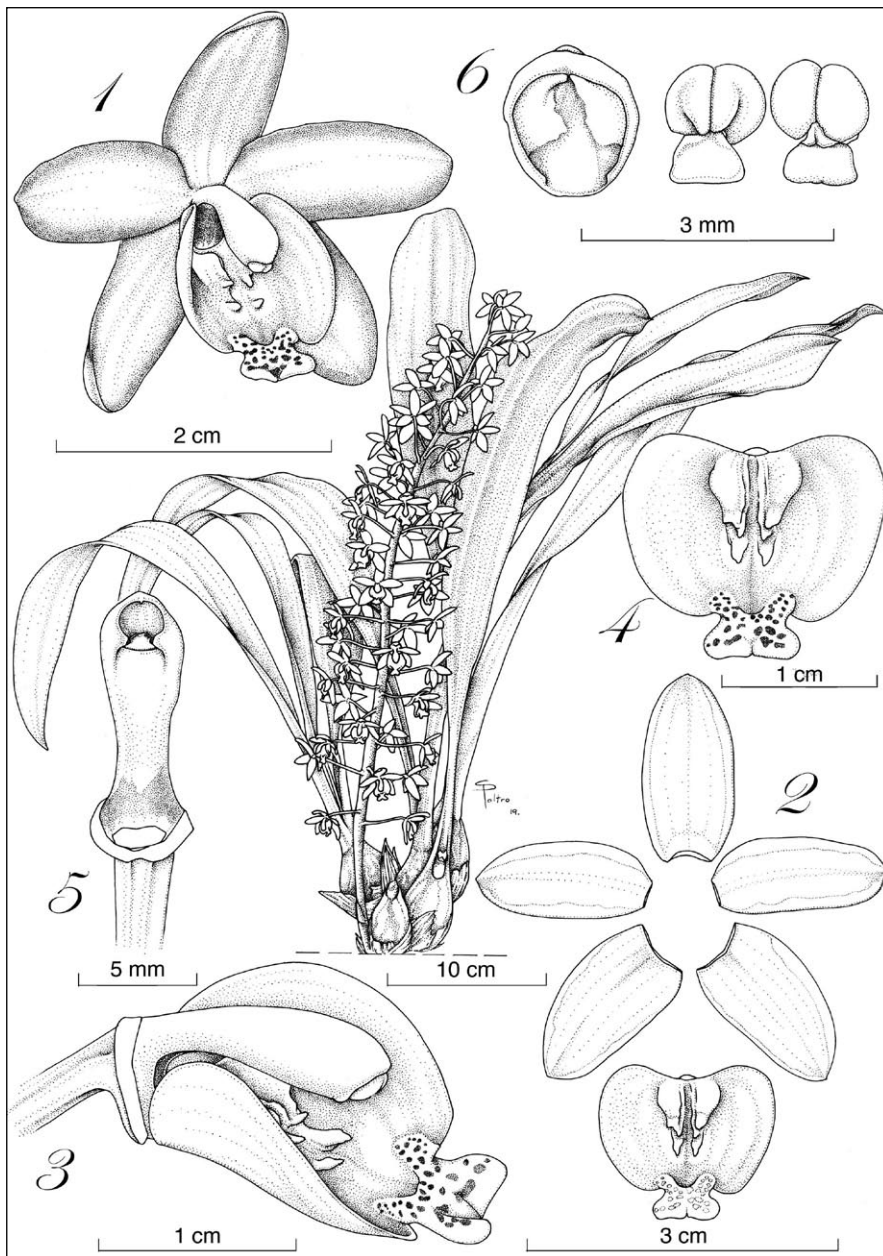
The relationship of *Eriopsis* with other orchids has always been controversial, because the morphology of the genus seems to combine features of several diverse groups. Initially, the structure of the pollinarium suggested a position in the vandoid orchids, probably close to the Maxillariinae (Lindley 1947). Reichenbach (1863) placed the genus in the Zygopetalinae, and Dressler (1981) included it in the Cyrtopodiinae based on flower and pollinarium structure. Later on, this same author suggested that it might deserve a separate subtribal status, which was later formally proposed by Szlachetko (1995) in creating Eriopsidinae, with the sole genus *Eriopsis*. Chase and collaborators (2003) included Eriopsidinae in Cymbidieae, a phylogenetic placement later confirmed by the unpublished data that Neubig, Whitten and coworkers obtained from their expanded molecular analyses (including nrITS/*matK*/*ycf1*). The resulting phylogenetic trees recovered the isolated placement of Eriopsidinae within Cymbidieae, as sister to all the rest of the American groups within the tribe, and in this way the subtribe is treated in *Genera Orchidacearum*.

Geographically, *Eriopsis* ranges from Guatemala and Belize in Central America

south to the western Andes of Peru and also in the lowlands of Amazonia in Venezuela, Colombia, Ecuador, Peru, Bolivia and Brazil in South America. The diversity of the genus has been long misunderstood. In the past, the number of accepted species varied greatly from treatment to treatment (Dressler 2003, Whitten and Pridgeon 2009, Romero et al. 2015). The name *Eriopsis biloba* has been broadly applied and some authors often attributed the variability in vegetative and floral morphology only to environmental conditions, treating most of the other names as synonyms (Romero et al. 2015). This confusion may be due to the fact that *Eriopsis biloba* is locally common and well documented (it is, for example, a dominant orchid on the summit of Auyan-tepui in southern Venezuela), while other species such as *Eriopsis rutidobulbon* and *Eriopsis sprucei*, less so, and the rest of the taxa are rare and poorly known (Romero et al. 2015).

Romero and collaborators (2015) recognized seven species in the genus. Two groups of species can be easily told apart, both in the field and the herbarium, based on the structure of the compound callus placed at the base of the labellum. The first group, which exhibits a callus with two parallel lamellae, includes *Eriopsis sceptrum* and *Ess. sprucei*, while the second group — with a callus with at least four rows of longitudinal lamellae — includes *Ess. biloba*, *Ess. rutidobulbon*, *Ess. wercklei* and *Ess. escalerensis*, plus an additional species from the Andes that is still undescribed because of the lack of sufficient data available (Romero et al. 2015).

Although usually considered a later synonym of *Eriopsis biloba* (Schweinfurth 1960), or *Eriopsis rutidobulbon* (Dressler 2003), *Ess. wercklei* is probably the correct name to apply to Central American populations, which consistently differ from their South American counterparts in the much larger size of the floral segments (Pupulin 2010), the epiphytic habit and the shape of the pseudobulbs, and also by the pattern of the calli on the labellum (Romero et al. 2015). It is distributed through the Atlantic slopes of Costa Rica



*Eriopsis wercklei*. The plant.

1. Flower.
2. Dissected perianth.
3. Column and lip, lateral view.
4. Lip, adaxial view.
5. Column, ventral view.
6. Anther cap and pollinarium (dorsal and ventral views).

Drawn from JBL-09953 by Sara Poltronieri.

and Panama, and possibly Colombia, where it is usually found as an epiphyte on thick trunks and branches of high trees (Romero et al. 2015).

*Eriopsis wercklei* was described by Friedrich Richard Rudolf Schlechter (1872–1925), and named after the collector, Karl Wercklé (1860–1924), who actively collected plants in Costa Rica during the first decades of the last century. Schlechter was an outstanding German botanist who described more than a thousand orchids. Of these, approximately half have been reduced to synonymy with other species already described, but a careful scrutiny of Schlechter's supposed synonyms mostly reveal that his names deserve recognition as good species, and that his work meant a great contribution to the

systematics of Orchidaceae. He studied horticulture and at the age of 19 he started a series of botanical explorations in Africa. In his later years he settled again in Berlin, where he obtained his doctorate and served as curator of the Botanical Museum in Dahlem until his death. His immense collection of plants was destroyed during the bombing of Berlin in 1945. Fortunately a large number of his drawings of new species were copied in Berlin, under Schlechter's supervision, for the herbarium of Oakes Ames at the Harvard University. In several cases, the traces of Schlechter's drawings, and a few isotypes that the German botanist sent to his North American colleague, allow today a clear interpretation of Schlechter's taxonomic concepts, which would have been seriously hampered by the loss of his extraordinarily rich herbarium.

The type specimen of *Ess. wercklei* was sent to Schlechter by Amparo de Zeledón, a pioneer of naturalism in Costa Rica who financed botanists such as Adolphe (Adolfo) Tonduz and Karl (Carlos) Wercklé, who collected more than 20,000 specimens (Quesada 2010). Schlechter described the first species of Orchidaceae based on a collection by Wercklé (*Epidendrum wercklei*) in 1906 and he dedicated 11 new orchid species to Wercklé including *Ess. wercklei* (Pupulin 2010).

There are few data available for the pollination of *Eriopsis*. The flowers of some species have a subtle fragrance, but they do not appear to produce any nectar. Robert L. Dressler caught, in Panamá, a female of *Euglossa villosiventris* with a pollinarium seemingly of *Ess. rutidobulbon*, but according to a Romero et al. (2015) review, it was probably a pollinarium of *Ess. wercklei*. A syrphid fly of the genus *Ocyptamus*, has also been documented visiting flowers of *Eriopsis* species, where the attachment of the pollinarium to the scutellum of the fly was clearly observed. What attracted the *Euglossa* female bee and the fly is entirely unclear, therefore deception is the most likely pollination syndrome (Romero et al. 2015). Charpentier (1973) mentioned that stinging ant nests are sometimes found among the roots of *Ess. wercklei* in Costa Rica.

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## Orchid Conservation Alliance

### Conserving Orchids by Conserving Orchid Habitat

The OCA conserves orchids by funding habitat preservation. In 2018 we supported two reserves, Reserva Dracula in Ecuador and Reserva La Selva de Ventanas in Colombia. The Rainforest Trust matched our contributions, enabling the purchase of 400 acres of highly diverse rainforest and protecting a number of extremely endangered orchids as well as newly identified flora and fauna.



*Dracula gigas* (L), *D. trigonopetala* (R)  
Dracula Reserve, Ecuador

*Dracula lemurella* (L), *Lepanthes escifera* (R)  
La Selva de Ventanas Reserve, Colombia

We hope you will join us in this important work: Become a member of the OCA, make a donation, take a trip with us to see Orchids in the Wild®, or purchase merchandise through our website. Since we have no paid staff, all proceeds go to support orchid conservation.

The OCA is a 501(c)(3) corporation. [www.orchidconservationalliance.org](http://www.orchidconservationalliance.org)

### Selected Botanical Terms

abaxial – lower surface  
acute – pointed  
adaxial – upper surface  
apex – tip or top  
apicule – small point  
arcuate – bow-shaped, curved  
concave – bowl-shaped  
congested – closely spaced  
convex – curved like the exterior of a circle or sphere  
coriaceous – leathery  
dentiform – shaped like a tooth  
dorsiventrally – flattened with distinct upper and lower surfaces  
elliptic – oval  
epiphyte – a plant that grows on another plant for support  
extrorse – turned outward  
flexuous – flexible, full of bends and curves  
glabrous – smooth  
granulose – covered in small grains or granules  
hyaline – glassy, translucent appearance  
incumbent – lying on the inner side

incurved – curved inward  
infundibular – funnel-shaped  
isthmus – a narrow connection between two parts  
lamellae – plates  
lithophyte – a plant that grows on rocks  
monodial – growing upward from a single point  
oblong – having an elongate shape such as a rectangle or oval  
obovate – egg-shaped with the narrow end down  
obtuse – blunt or rounded  
ovate – egg-shaped with the narrow end up  
oblique – slanting  
operculate – lid-shaped  
papillae – small fleshy projection  
pedicel – a stem carrying a single flower  
peduncle – the lower part of the inflorescence below the first bud  
petiole – the stalk joining a leaf to a stem or pseudobulb  
phenotypic – relating to the observable

form of an individual  
plicate – pleated  
pubescent – covered in tiny fine hairs  
pyriform – box-shaped  
raceme – flowers arranged along a central stem  
reniform – kidney-shaped  
retuse – apex rounded with a slight notch  
rugose – wrinkled, corrugated  
scarious – dry and membranous in texture  
scutellum – a shieldlike structure  
serrulate – having a very small sawlike margin  
taxon – a taxonomic group of any rank, such as a species  
tegular – resembling a tile  
terete – pencil-like  
velamen – a spongy layer of outer cells on an epiphytic root  
verrucose – covered in warts or wartlike projections  
viscidium – sticky pad to which orchid pollinia are attached

# Adaptations to the Epiphytic Lifestyle

Text by Sue Bottom/Photographs by Terry Bottom

TRUE EPIPHYTES SPEND their entire lives without contacting the forest floor. Epiphytes (epi- means “on top” and -phyte means “plant”), describes plants that grow on tree trunks, branches and even on twigs. In locations where moisture and nutrients are available more or less continuously, such as in wet forests, epiphytes differ little in form and physiology from plants that grow in your garden. Epiphytes are particularly abundant in cloud forests, where the air is always saturated and leaves are dripping from condensing mist. In other tropical habitats many families of plants find it difficult to survive as epiphytes. Orchids are one family of plants that have evolved to the epiphytic lifestyle so thoroughly that they are also found in even the most extreme tropical environments (e.g., dry forests).



1



Sue Bottom

There are some orchids that grow in soil or leaf litter, but millions of years of competition led most of the tropical members of the Orchid family into trees where light was plentiful.

Leaving the moisture- and nutrient-rich forest floor, however, created many evolutionary challenges for orchids. Once orchids overcame obstacles inherent to life in the trees they evolved quickly into many different genera and species on all continents except Antarctica.

In dry forest environments, water and nutrients are supplied in pulses during unpredictable rain events. There are often extended periods of dryness between storms. Orchids adapted to these dry conditions by obtaining their water and minerals through unusual plant forms and major changes in their physiology or life history. Two general approaches are avoidance and endurance.

Drought avoiders are seasonal growers that restrict most of their vegetative growth to wet periods of the year. Orchids in this group often have thin leaves that do not function as storage reservoirs. The dry season does not support their normal heavy water use, so foliage is shed and the plants lapse into dormancy. Carbohydrates and moisture are held in reserve in fat pseudobulbs, corms or tubers. When



2

favorable weather returns, new growths emerge to repeat the cycle. Commonly grown drought avoiders are most of the Catasetinae and certain dendrobiums and lycastes.

Drought endurers include major horticultural genera (e.g., the Cattleya Alliance). They require quick adjustments to abrupt environmental challenges to maintain a favorable water balance within their leaves. Each time these orchids' moisture source dries out, which can take only an hour or two, there is the potential for an extended drought to follow. Adaptations to the epiphytic lifestyle revolve around water relations. Acquiring moisture and preventing the loss of water are critical to their success.

[1] Catasetums are drought avoiders. They drop their leaves and go into a deep sleep when the dry season deprives them of the moisture they need.

[2] Cattleyas are drought endurers. They sustain themselves during dry periods by consuming energy and moisture stored in their pseudobulbs.

Epiphytic orchids survive because they obtain and store water efficiently. These drought-enduring orchids have succulent leaves and pseudobulbs for storing moisture, velamentous roots for quick water and nutrient absorption and the ability to photosynthesize when moisture is scarce.

ROOTS Epiphytic orchids have



roots adapted to life in the tree canopy. Roots anchor the orchid to its host plant, holding tight even when buffeted by winds. The unique root structure consists of a nonliving, thick air-filled layer called velamen that surrounds the living cortex of the central conductive filament. This adaptive velamen structure acts like a sponge, becoming engorged quickly after contact with liquids, so moisture and nutrients can move through the cortex and into the vascular system. This velamen becomes almost impermeable during dry periods, which prevents water from being exuded from roots. The velamen has special cells for gas exchange too, absorbing oxygen for respiration, and, where chloroplasts are present, carbon dioxide for photosynthesis. High porosity potting mixes are recommended for epiphytic orchids to help ensure that roots can be bathed with air. When organic matter in a potting mix starts to break down, the mix begins to compact and effectively smothers the roots. It is not too much water that kills your orchids; it is the lack of air around roots that orchids cannot tolerate.

**PSEUDOBULBS** Many epiphytic orchids have short, thick bulb-shaped stems called pseudobulbs. These structures store water and carbohydrates, similar to humps on a camel. Pseudobulbs swell or shrink as moisture is stored or withdrawn, allowing orchids to sustain themselves in seasonally dry areas where plants may experience months without rainfall. Plant morphology thus serves as a general guide to basic orchid culture. The fat pseudobulbs with thick leaves typical of cattleyas suggest the plant is more drought tolerant than thin-leaved plants such as many oncidiums. Some epiphytic orchids do not have pseudobulbs (e.g., phalaenopsis) and instead rely on fat roots and leaves for energy and water reserves.

**LEAVES** Leaves of epiphytic orchids are often thick and succulent and covered by an evaporation retarding waxy cuticle. The more succulent the leaf, the more the leaf interior assumes a water storage role. Less conspicuous features promoting water retention include recessed stomata (pores used for gas exchange), usually located on the leaf undersides, and reflective surfaces. Once again plant morphology acts as a general guide to basic orchid culture.

**PHOTOSYNTHETIC PATHWAY** Life in the trees typically results in what is, in effect, an arid environment. Most garden plants open their stomata during the day to



3



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absorb carbon dioxide for photosynthesis, which occurs during daylight hours. Open stomata during the heat of the day also allows water to escape and evaporate in a process called transpiration. More than 90 percent of the water absorbed through the roots of garden plants can be lost through leaves thanks to transpiration. This excessive water loss would result in death of an epiphytic orchid. Because carbon dioxide gain and transpiration water loss both occur through the same stomatal opening, some epiphytic orchids use a specialized adaptation called CAM photosynthesis (crassulacean acid metabolism) to minimize water losses. Carbon dioxide is absorbed during the nighttime hours when the stomata are open, and then stored within the leaf for subsequent photosynthesis during daylight hours when stomata are closed. Keeping stomata closed during the heat of the day, and open at night minimizes transpiration losses. Crassulacean acid metabolism plants have a very high water

[3] The living filament is surrounded by velamen, nonliving spongy tissue once it reaches maturity, that continues to absorb water and mineral nutrients.

[4] Cattleyas can grow rapidly during the wet season, storing lots of carbohydrates and moisture in their fattened pseudobulbs.

use efficiency allowing them to live in the windy, arid environment in the trees. Of course, the intermediate storage of carbon dioxide has an energy cost, so CAM plants grow relatively slowly, requiring less fertilizer to provide mineral nutrition. This is the tradeoff epiphytic orchids made for life in the trees. The more succulent the plant, the more likely the plant uses CAM metabolism. Thick-leaved cattleyas and phalaenopsis often use CAM metabolism, while thin-leaved oncidiums often use the more conventional photosynthetic pathway.

**NUTRITION** Orchids in the tree canopy also live in a low nutritional

environment. Dust settling on leaves, nutrients in the atmosphere and even molecules leached from leaves by dripping rainfall provides most nutrients taken up by epiphytes. While fecal material may occasionally contribute to an epiphytic orchid's nutrient balance, such events are rare. Nutrients must be dissolved in water to be taken up by plants. Orchids develop tremendous root systems enabling them to survive and grow in a low-nutrient environment as long as they grow slowly. They are also extremely effective in taking up nutrients, especially micronutrients. The velamen of orchids, which is so efficient at absorbing water, also helps absorb nutrients from rainfall. Poole and Sheehan (1982) wrote: "Rainfall is a valuable source of nutrients for epiphytic plants since it washes dust particles out of the air and onto them. The atmosphere is also an excellent source of nitrates, especially during electrical storms. Water flowing over leaf surfaces leaches mineral and organic nutrients from the leaves. Thus, the leaf canopy of the host tree becomes a nutrient source that enriches the water before it reaches the orchid plant. The major source of nutrients, however, is probably the slow decomposition of organic matter (both flora and fauna) that accumulates in tree crotches and among the bark, roots, rhizomes and leaves of orchid plants" (p. 198).

Epiphytic orchids have adapted to ecological constraints with unique mechanisms that tap limited resource pools, prolong contact with passing canopy fluids and promote water and nutrient use efficiency. Epiphytic orchids have adapted to the water-deprived and nutrient-deficient environment by growing more slowly, producing leaves that are thick and hard, and putting more energy into root formation. Air movement is greater in the tree canopy, drying leaves rapidly after storms, which helps prevent bacteria and fungi from penetrating the plant. Orchids require more fertilizer in culture, thanks to the loss of roots each time they are repotted. Due to their inherent ability to take up nutrients, they can be pushed to grow more rapidly with lots of fertilizer, but rapidly growing cell walls may be thinner and softer and more easily invaded by pests and diseases. Rather than relying on a chemical arsenal to cure problems, prevent problems from occurring by mimicking nature. Abundant air movement, dappled light, open freely draining potting mixes, dilute fertilizer and careful watering will help you grow



healthy plants, which will reward you with lots of blooms.

#### Acknowledgments

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[5] Most cattleya leaves are thick, allowing some internal water storage. They often have a waxy cuticle to prevent excess water loss.

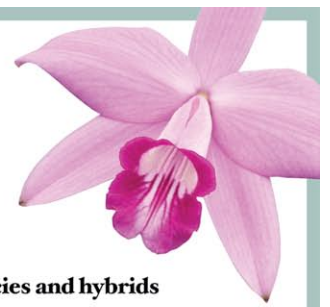
[6] Cattleyas are busy absorbing carbon dioxide during the cooler night hours when humidity is higher, storing it for photosynthesis during the daylight hours.

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— Sue Bottom started growing orchids in Houston in the mid-1990s after her husband Terry built her first greenhouse. They settled into St. Augustine, Florida, Sue with her orchids and Terry with his camera and are active in the St. Augustine Orchid Society, maintaining the society's website and publishing its monthly newsletter. Sue is also a member of the AOS Editorial Board ([sbottom15@gmail.com](mailto:sbottom15@gmail.com)).



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# Small Displays

The Art of Creating Small,  
Elegant Displays

TEXT AND PHOTOGRAPHS BY SERGEY  
AND ELANA SKOROPAD





CREATING ORCHID DISPLAYS at home has been a passion of ours for many years. We have many orchids — each a beauty to admire. I thought, “Why not put a few plants together and enjoy their beauty in composition?” Orchids can be beautiful additions to indoor decor. Although it is not always easy to create a display at home, it is very rewarding.

We do not have a huge collection of orchids: around 250 plants, maybe a few more. Although our passion is paphiopedilums, we grow and nurture an assortment of genera such as phalaenopsis, cattleyas, dendrobiums, miltoniopsis and oncidium, lycastes, catasetums, masdevallias and many others. Over the last few years we have concentrated on less-common genera including gastrochilus, macrocliniums, pleiones, rhynchosteles, comparettias and angraecums. We do not have a greenhouse and grow everything in our house during the colder months and out-of-doors in the summer. This situation presents some challenges as different types of plants usually require different growing conditions, which can be very difficult to provide indoors. The winter in New Jersey is usually cold and can be long and the heater also lowers humidity down to 20 percent or less. In contrast, our summers are hot and humid, which are not suitable growing conditions for masdevallias, cool-growing Oncidiinae and other cool-growing orchids! The day temperature can fluctuate from 56 F (13.3 C) to 95 F (35 C) and change from misty in the morning to dry during the day to wet again in the evening which presents a problem when many plants are outside

We believe that hard work and a lot of love can bring great success. We are always excited to see our orchids in bloom. We try to grow our plants to the best of our ability and always try to remember that 50 percent of success is good culture. The key to growing orchids without a greenhouse is a lot of hard work, love and a little bit of luck!

Everyone loves to look at a beautiful picture. It is something that everyone can appreciate.

Orchids can be displayed in a number of different ways; this is where you can get creative.

There are many factors and challenges in creating an orchid display at home. For example, plants tend to bloom at different times of the year and it is almost impossible to have all the plants bloom at the same time. Thus, creating a masterful centerpiece depends on



knowing the approximate blooming time of each orchid. Sometimes, orchids like to surprise us and bloom early or late. We are always excited when one of our orchids bloom a bit early or has extra inflorescences.

Another challenge in creating a new display at home is having enough space to build it. The best place is usually a large and bright room or foyer space, so you can see and enjoy the display from a distance.

Usually, I use a table and put orchids together in a group. A further challenge is finding the right space to take photographs. Sometimes the right space for the display is not the same as the best

[1] Elegant displays do not require lots of plants. Here nine plants have been skillfully arranged for effect on a round table-top. Oncidium intergenerics have been used to provide height, and the combination of bright yellow *Dendrobium lindleyi*, dark red lycaste hybrid and tiny miniature cattleya help to hold the viewer's interest.

[2] Some show schedules provide a class specifically for five plants arranged for effect. Even if the schedule for your show does not, five or six plants can be quite attractively arranged in a small space to produce a truly visually appealing display.

spot for photographs or for growing the plants and we may need to use a different location for each of these. There should be enough room to create a display and take many pictures.

One of most critical factors is having the right amount of light. Sunlight is so dramatic!

The right amount and type of light is one of the most important elements in flower photography, therefore it makes sense to use the best source available. I never use artificial lighting or flash. I also like to shoot outside in summer but creating a composition outside is not always easy as weather conditions can change abruptly and be very hard to predict. Because of these considerations, I prefer to mostly shoot inside — it provides a good balance of light, with no wind to fight and I can shoot any season, even in the winter. For best results, take your pictures inside with natural sunlight (but not direct sun) coming from above and behind the back of your head on a bright sunny day.

For the last couple of years we have made more than 20 displays, including some large displays of 15–20 plants or more and also smaller ones of 5–7 plants.

I have a few suggestions for making good displays — at shows as well as at home. There are different types of displays: one-level table displays, multilevel table displays, bowl displays, vertical displays and others.

It is good to use an average of 10 plants in perfect blooming condition but additional plants can be added if they are smaller in size. We recommend the use of multiple levels to create a multidimensional display. A variety of colors also will make the colors glow from one vantage point to another. A black background is best so the plants are the focus of the display. Keep in mind that whenever you pose your orchids, you want to showcase the flowers. Anything other than the flowers themselves will detract from the subject you are trying to show. Therefore, any background must be completely out of focus. Colored, patterned or rough backgrounds can completely ruin an otherwise stunning, elegant display. Background materials can be purchased inexpensively from any fabric shop.

The arrangement of the flowers is important. Orchids should be posed in their natural position. They should be firmly staked — firmly enough that they will not move — and the stake and ties



must be out of sight in the final picture. Some plants with sturdy stems might not need stakes, but most will need to be tied. Use neutral-colored ties and avoid the use of those plastic butterfly clips. These are as distracting as inappropriate background material. Plants with short stems and long leaves should have their leaves pulled away and out of sight so that the flower will be seen. If you want the leaves to show, you will need to clean them and trim any brown tips. Name tags must be cleaned up or hidden and insects and dead flowers must be removed. It is amazing how even the tiniest imperfection will show up clearly, especially in photographs.

One final suggestion: do not overpower the display with large plants that are out of scale for the available space — a variety of sizes and genera in similar pots is best. For orchids that are too large to fit in, you might consider placing them in large decorative bowls and covering the top with moss, stones or other material for a beautiful presentation.

Everyone enjoys the displays by commercial growers and orchid societies at orchid shows and other events but, sadly, there are increasingly fewer displays by home- or amateur growers. The new AOS national award for Best Display — The Walter Off Exhibit Award — may help to change that.

Take photographs of your home displays and, most importantly, share them with your friends or local society. You might even consider creating small

[3] This display, staged for a home entryway, utilizes only eight plants. Here the visible pots do not distract from the overall presentation because they are clean and a non-contrasting color.

displays for your society show table. Why not? Be creative!

We hope that this article has piqued your interest and helped to dispel the belief that making displays at home without a greenhouse full of plants is impossible. It is not. In conclusion, we would like to see more amateur orchid-lovers and growers creating displays at home, society meetings and local shows, and sharing their experiences with fellow enthusiasts.

Acknowledgment

Special thanks to our daughter Olga.

— *Sergey and Elena Skoropad have been growing a wide variety of orchids without a greenhouse for over 15 years. Their skill is exemplified by 40 cultural and flower quality awards, including the prestigious 2015 Carlyle A. Luer Award for the best pleurothallid. They actively participate at many AOS member regional meetings, write articles for Orchids magazine, attend World Orchid Conferences and have traveled around the world to find orchids growing in their natural habitat. Both are student judges in the Mid-Atlantic Judging Center (email: sergeskrpd@yahoo.com, elenaskoropad@yahoo.com).*



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PAST, PRESENT, FUTURE

# Inkaterra, Peru

Orchid Gardens and Reserves

Text and photographs by Thomas Mirenda





IMAGINE, IF YOU will, a lush and rugged landscape nestled above and alongside a rushing river. Just across the river, the steep vertical face of a grand mountain, its trees bedecked with golden oncidium blooms, juts impressively into the cool, misty clouds. Happy, industrious people have built granite pathways and staircases through this natural garden where hummingbirds quarrel and cavort, competing for fuchsia flowers. Lovely, natural green walls and green roofs interplay with the lively topography as you wander through its winding mysteries. While taking in all this stunning beauty, you suddenly realize that there are orchids encrusting practically every tree and rock surface — *elleanthus* and *sobralias* cascading off of rock walls, thriving, vigorous *maxillarias*, *sudamerlycastes* and *anguloas* overwhelming and spilling over the crevices in which they were placed years ago, and outrageous specimens of unusual *pleurothallids* exuberantly bedecking every tree and shrub.



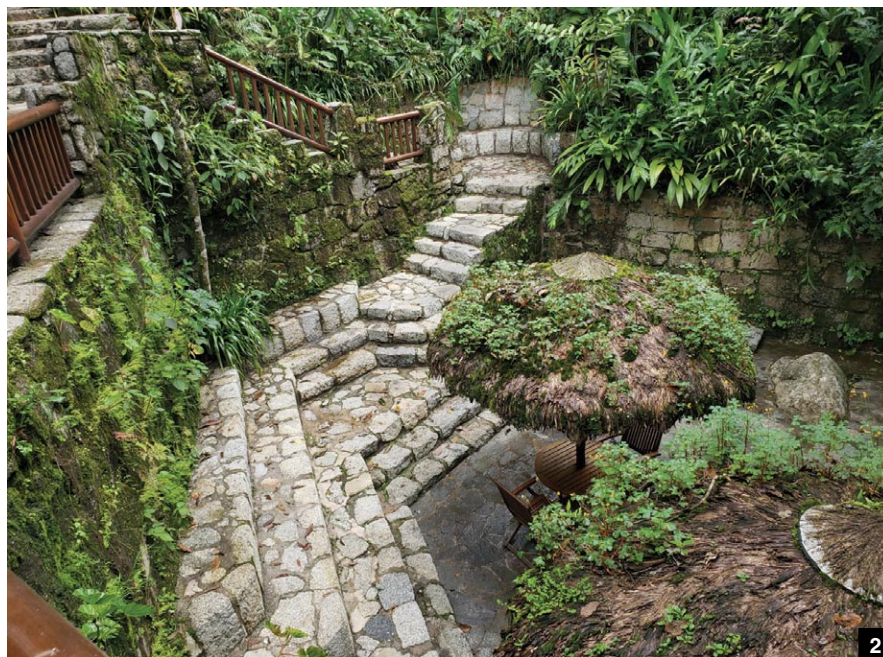
Thomas Miranda

There is no need to fantasize about such a place, as it actually exists. The Orchid Garden at the Inkaterra Pueblo Hotel near Machu Picchu is all these things and more.

Conceived by Peruvian entrepreneur Jose Koechlin and brought to fruition by an enthusiastic and dedicated staff led by Carmen Soto, the Gardens at Inkaterra have been thrilling visitors for several decades, but are not visited nearly enough by the orchid community. I hope to change this. Inkaterra Pueblo is not only a magnificent orchid garden, but it represents something even more wonderful and important.

Orchid gardens and reserves are suddenly appearing around the world. They will become increasingly important as species repositories and refugia for plants endangered by deforestation, land degradation and climate change. Indeed, orchid gardens such as this one are underutilized conservation resources where some of the real, practical aspects of conservation biology can be harnessed and practiced.

As one of the premier and successful orchid gardens currently in existence, Inkaterra holds many treasures, including several newly described species. Specializing almost completely in the endemic flora of the region around Machu Picchu, the garden is a fine example of the *circa situm* conservation concept. In other words, the plants native to the region have



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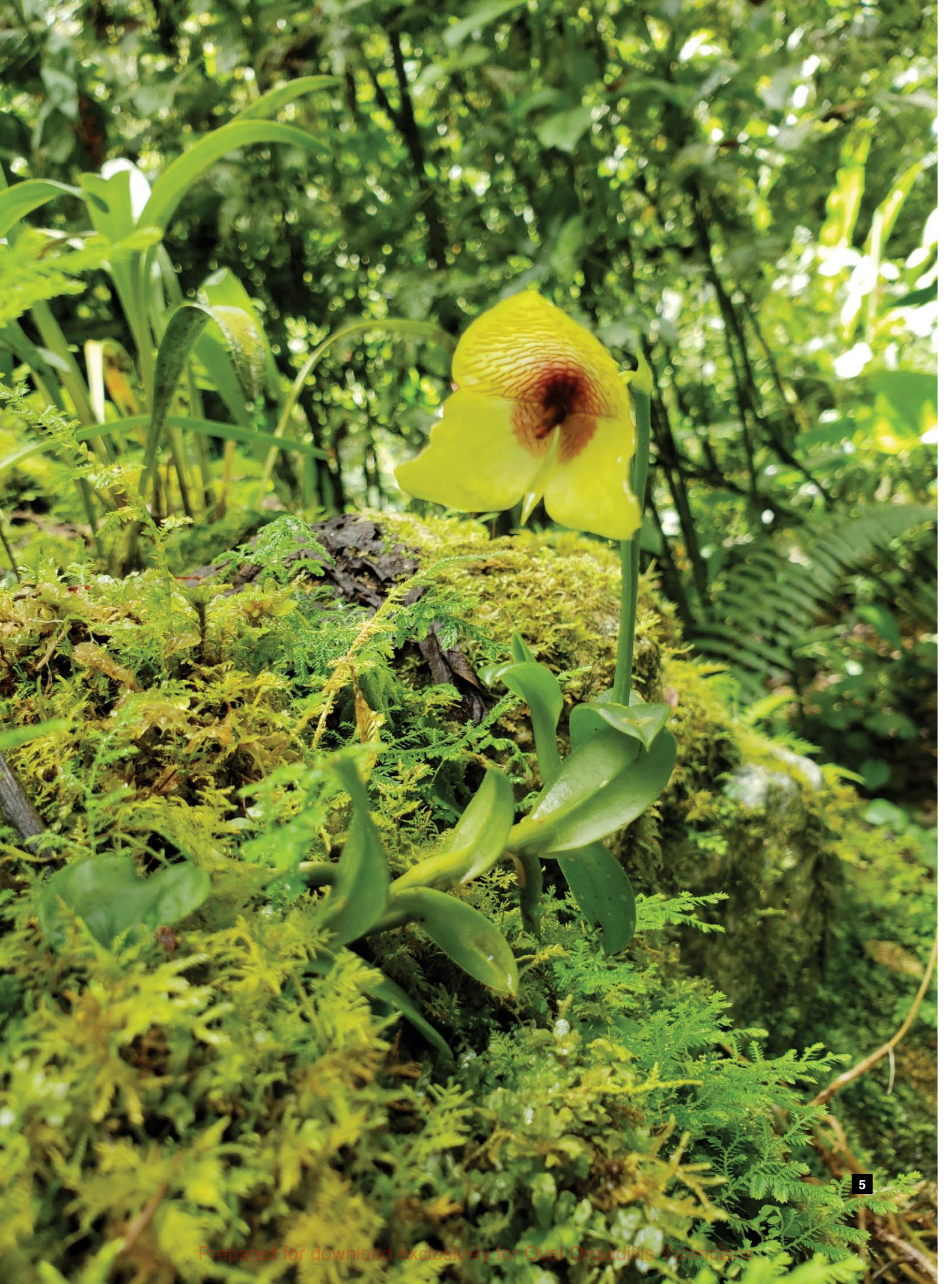
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- [1] A magnificent specimen of *Trichopilia fragrans* growing in the garden. Individual flowers can reach 4 ½ inches (11 cm) in diameter.
- [2] The terraced gardens at Inkaterra are breathtakingly beautiful.
- [3] Imagine happening upon these magnificent *Masdevallia antonii* flowers in the wild.
- [4] This awesome maxillaria is *Maxillaria platypetala*, a cool-growing Peruvian endemic. The characteristically down-facing white flowers reach up to 3 ½ inches (8 cm) in diameter.









been used to populate the gardens. So the orchids are providing the garden with spectacle, but are also being conserved in what is the closest situation to a natural in situ situation. As lovely as it would be to have a colony of *Phragmipedium kovachii* there, it does not naturally occur in the region, and therefore would be inappropriate for the garden's mission. Even so, Ms. Soto regularly collaborates with taxonomists and ecologists, documenting new discoveries within the region, and the staff there provides walking educational tours and programs to their visitors.

Some of the new discoveries contained within the gardens of Inkaterra will be the subject of future articles. To be continued!

— Tom Miranda has been working professionally with orchids for over three decades. He is an AOS accredited judge and is the chairman of the American Orchid Society's Conservation Committee. He recently coauthored *The Book of Orchids: A life-size guide to 600 species from around the world* (email: [biophiliak@gmail.com](mailto:biophiliak@gmail.com)).



[5] It is no wonder that telipogons are so difficult to grow in our temperate collections. Pictured here is *Telipogon bowmanii*.

[6] The individual flowers of *Elleanthus* species are quite small but their colorful heads of bracts can be nonetheless striking. This specimen is believed to be an introgressed hybrid of *Elleanthus spaerocephalum*.

[7] *Masdevallia veitchiana* flowering in the gardens.

[8] The large, cattleya-like *Sobralia virginalis* flowers last only about a day but plants flower repeatedly throughout the year.



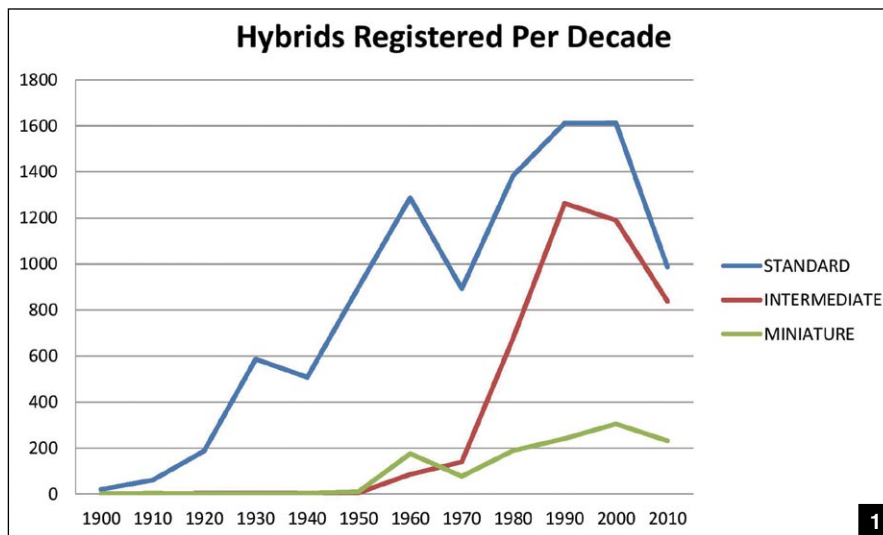
# An Analysis of AOS Award Data to

Text by Kevin Hill

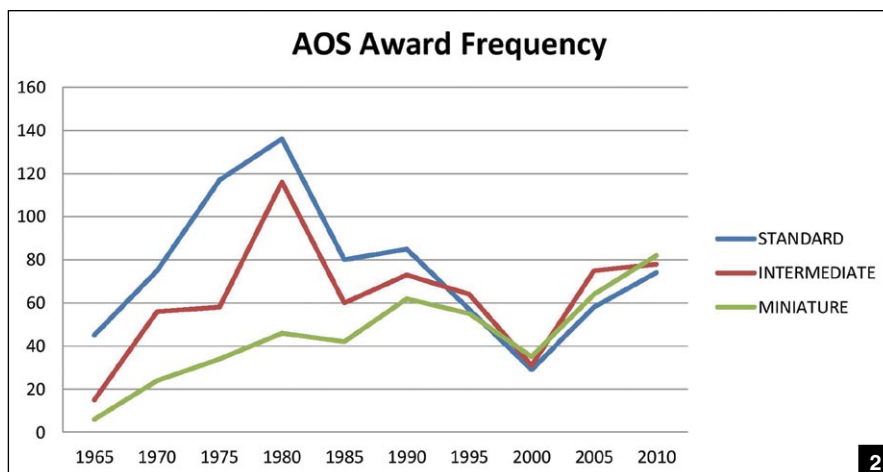
CYMBIDIUMS HAVE BEEN actively used in orchid hybridizing since 1895, the earliest registered hybrid being the primary hybrid *Cymbidium Gammieanum* (*elegans* × *erythraeum*). Over 16,000 cymbidium hybrids were registered with the Royal Horticultural Society by the end of 2015. Up until the 1960s, most of the hybrid registrations were directed to standard cymbidiums, after which the miniature cymbidiums and the intermediate cymbidiums were more substantively developed. Standard cymbidiums continue to be the greatest number of new hybrids produced.

For the purpose of this analysis, I am defining standard cymbidiums to be those hybrids whose pedigree is composed of the large-flowered species, such as *Cymbidium tracyanum*, *Cymbidium hookerianum*, *Cymbidium insigne*, *Cymbidium eburneum*, *Cymbidium lowianum*, *Cymbidium erythraeum*, *Cymbidium sanderae* and *Cymbidium erythrostylum*. The natural spread of these species ranges from about 2.4 to 5.9 inches (6–15 cm). Standard cymbidiums do not comprise the small-plant, small-flower species such as *Cymbidium goeringii*, *Cymbidium ensifolium*, *Cymbidium sinense*, *Cymbidium tigrinum*, *Cymbidium canaliculatum*, *Cymbidium devonianum* or *Cymbidium floribundum*, or the large-plant, small-flower species, such as *Cymbidium madidum*, *Cymbidium suave*, *Cymbidium aloifolium* or *Cymbidium bicolor*. I define miniature cymbidiums as those hybrids whose genomes are composed of 50 percent or more from the small-plant, small-flower species. Intermediate cymbidiums comprise those hybrids that have less than 50 percent contribution of the small-plant, small-flower species, as the intermediate class represents hybridizing away from the miniatures. Intermediates also comprise hybrids created using the large-plant, small-flower species.

The OrchidsPlus (OP) database AOS judges use as a reference tool provides data on cultural and quality awards for over 850 standard, 600 intermediate and 450 miniature cymbidium hybrids as of the close of 2015. The late 1970s through the late 1980s was the decade in which AOS judges awarded the most standard cymbidiums, well over 100 plants every five



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years. There has been a gradual decline in flower-quality awards to standards since the 1980s, and instead, by the mid-2000s, quality awards to the intermediate and miniature cymbidium hybrids surpassed the standards. Why might this be? Is there a greater interest in the intermediates and miniatures? What do judges expect when evaluating standard cymbidiums? Has the bar been raised for standard-cymbidium quality awards? If so, how? Does the OP database provide evidence for flower-quality improvement?

### Observation vs. Expectation

The scientific method is built upon a comparison of the observed with the hypothetical expectation. The process of flower judging is largely analogous. We make use of OP to evaluate previously awarded plants having the closest

[1] Cymbidium hybrid registrations by decade from 1900 to 2015. The apparent drop off after 2010 is the result of only a partial decade.

[2] AOS awards to cymbidiums from 1965 in five-year periods.

representation to the plant before us, which provides us with an expectation. We compare these data and expectations to the observed plant under consideration. Ostensibly, the database provides a commonly shared, objective reference to all judges for discussion, education, and award determination as opposed to subjective expectation, anecdotes and opinion-only statements. Furthermore, OP is a research and teaching tool from which any judge or other interested party may learn and review orchid genera and



# Standard Cymbidiums

hybrids or species for which they are less familiar. Therefore, what are we attempting to capture in the database? How do we mine the database to arrive at a greater understanding of award-quality flowers?

The AOS score sheet is composed of three major categories: flower form, flower color and other characteristics, such as flower size, substance and texture, inflorescence habit and arrangement and floriferousness. These elements are captured, directly or indirectly, in OP award descriptions. Therefore, do you think it is reasonable to expect a positive correlation between the points assigned to one or more of the traits and the overall point score? If so, then what trait(s) do you think should positively correlate?

## Missing Data

The point values attributed to color are not provided in the award description. This means that for most orchids, 30 percent of the award score is unavailable for direct review and comparison. For *Paphiopedilum*, 40 percent of the final score is unaccounted. While many people suspect, assert or seek improved color quality, such considerations remain subjective. Points given to substance and texture or habit and arrangement are also unavailable in the database. Therefore, for cymbidiums and many other orchid genera, 50 percent of the total points used by the judges to arrive at an award determination is missing from the database and cannot be deduced.

Why are the missing data important? Consider that a minimum flower-quality award need only achieve 75 points. If a judging team finds a given orchid to be worthy of a Highly Commended Certificate (HCC), then the plant has already received a minimum of 40 points for color quality, substance and texture, and habit and arrangement. If the flowers are of acceptable size (7.5 points) and acceptable flower count (7.5 points), then add another 15 points. That means a flower with an arguably poor-quality form will still be awarded because only 20 more points are needed. If these missing point scores are reflective of an orchid bearing flowers with exceptional color, texture and substance, or a well-groomed arrangement, then the form

quality can be even poorer. Furthermore, a cursory review of closely related award photographs and their corresponding overall award point score might lead the judges to immediately conclude that an orchid with poor-quality flower form is, in fact, worthy of at least an entry-level HCC due to form alone. Such an erroneous determination hinders the goal of perfecting form.

## Other Characteristics

**FLORIFEROUSNESS** The database does allow us to compare awarded flower counts, which range from three to 32 flowers per inflorescence. Twelve flowers per stem is average with a standard deviation of four. This means that a standard cymbidium presented with fewer than eight flowers is significantly below award average, and thus should receive fewer points. Conversely, 16 flowers or more is significantly above award average, even for FCCs! There has been no raising of the bar for flower count across the decades. The average value in the 1970s is the same as it is presently. Flower count does not correlate with award tier. Rather, the average flower count for an entry-level HCC of 75 points, an entry-level AM of 80 points, and an entry-level FCC of 90 points is the same.

All Awards	12+/-4
Highly Commended Certificate	12+/-4
Award of Merit	12+/-4
First Class Certificate	12+/-4

**Table 1. Flowers per inflorescence**

**SIZE** Flower size is typically determined by measuring the horizontal natural spread. Often, one will see posts in the social media or online blogs and forums boasting the natural spread of a given flower. From the quality-award data, we find that the average natural spread is about 4.3 inches (11 cm) with a standard deviation of 0.8 inches (2 cm). There is a modest increase in the average natural spread concordant with the award tiers, and the range is much broader for HCCs and AMs than for FCCs. However, when we compare the natural spread distribution of past decades to the last 15 years (4.3 in [11 cm]), we find that the average value

has not changed much and, in fact, is somewhat less than the peak in the 1970s (4.7 in [12 cm]). If the goal in the award system is to promote improvement, then we are not seeing a greater number of standard cymbidiums with larger natural spread being awarded.

	Range	Average
All Awards	5–16.5	11+/-2
HCC	5–16.5	11+/-2
AM	5–16.5	12+/-2
FCC	11–16.5	13+/-2

**Table 2. Horizontal Natural Spread**

One must consider the parent species in the background of a given hybrid. *Cymbidium tracyanum* typically has one of the widest natural spreads, but a much shorter vertical dimension. Conversely, *Cym. erythrostylum* has a smaller width, but a much longer vertical dimension. Hybrids based on *Cym. erythrostylum* are used for the production of early-season flowers, and hybrids from *Cym. sanderae* are used to confer a nice contrasting lip and potential warmth-tolerance. It is reasonable to expect that first- and second-generation hybrids based upon these species may also have a smaller natural spread. However, more complex standard hybrids may, in fact, show a larger natural-spread value.

## Flower Form

**GENERAL** The general form of the cymbidium flower is toward roundness and fullness; however, some fine cultivars may have a more open, star-shaped appearance. Roundness is an aspect ratio, reflecting both the horizontal and vertical natural spreads. Both a square and a circle have an aspect ratio of 1.0, as compared to the standard 11- × 8.5-inch (17.9- × 21.6-cm) rectangular sheet of paper, which has an aspect ratio of 1.3. Unfortunately, the vertical natural spread was not consistently provided until the 1990s, so we have a more limited cultural and quality award data set to evaluate than for horizontal natural spread. Nevertheless, what we find is an average vertical natural spread of about 3.9 inches (10 cm), with a standard deviation of 0.8 inches (2 cm). Much like the horizontal natural spread, the vertical natural spread

is essentially the same across the award tiers, although FCCs clearly have a larger minimal value than the HCCs and AMs. Curiously enough though, note that the aspect ratio trends away from a perfect circle with higher quality awards, whereby the flowers are typically wider than tall.

	Range	Average	Aspect Ratio (h/v) and [average]
All Awards	5–14	10+/-2	0.8–2.0 [1.2]
HCC	6.5–11.5	10+/-2	0.8–1.7 [1.0]
AM	7.5–12	10+/-2	0.8–1.6 [1.1]
FCC	10–12	11+/-1	1.2–1.3 [1.3]

**Table 3. Vertical Natural Spread**

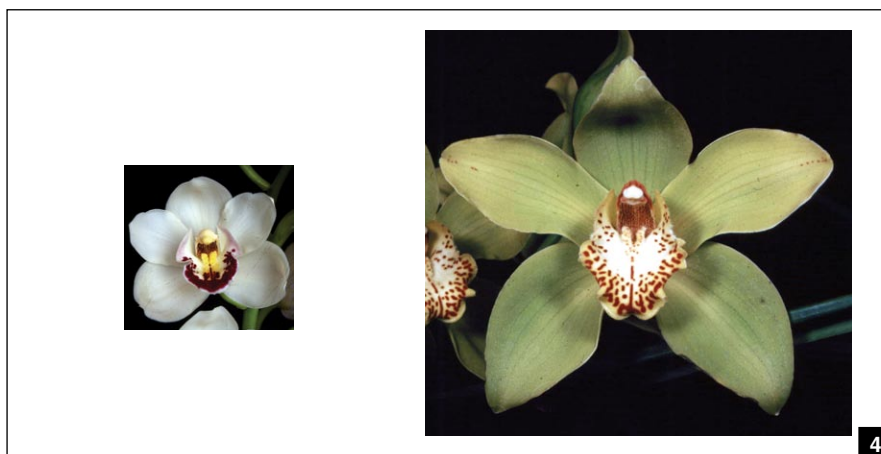
**SEPALS AND PETALS** The sepals should fill the gaps between the petals and lip. The overall average dorsal sepal aspect ratio is 0.24 inches (0.6 cm). Since the 1980s, we see a modest, 0.04-inch (0.1-cm) improvement in both the petal and lateral sepal aspect ratios, arriving to the present overall average values. However, because the average aspect ratios are essentially the same regardless of quality award tier, decade, or quality award tier per decade, it appears that no significant, consistent improvement in the sepal and petal metrics has been achieved.

	Range	Average
Dorsal sepal	0.3–1.0	0.6
Petals	0.2–1.2	0.6
Lateral sepals	0.2–1.3	0.7

**Table 4. Segment Aspect Ratio (length/width)**

#### Have We Reached the Peak?

Flower quality is not just one trait, but a combination of traits. Most of us intuitively recognize this fact. Should a high quality award be given to a flower having one exceptionally large feature, yet rendering the overall form asymmetric and out of balance with the other flower parts? As can be seen from the previous data summaries, it appears that there are few individual traits that strongly correlate to award tier. Of the over 850 standards awarded by 2015, only about 30 quality awards have a natural spread aspect ratio of 1.0, indicating perfect roundness or squareness, and the natural spread width ranges from 3.6 inches (9.2 cm) to 5.7 inches (14.6 cm). The corresponding sepal



and petal aspect ratios are presented in Table 5. Of the 30 awards, 11 have a dorsal sepal aspect ratio greater than 6. Of these 11, four have a lateral sepal aspect ratio greater than 7. *Cymbidium* Kirby Lesh ‘Cinnabar’, as shown, demonstrates one of the best combinations of general form traits.

	Range	Average
Natural Spread	1.0	1.0
Dorsal sepal	0.3–0.8	0.6
Petals	0.3–0.7	0.6
Lateral sepals	0.5–0.9	0.7

**Table 5. Aspect Ratio (width/length)**

*Cymbidium* hybrids are being produced around the world. However, the type and breeding in the United States is not the same as it is in Europe, Japan or Australasia. By the end of 2015, most registered standard cymbidiums in this country are but three generations ( $F_3$ ) away from a parent species, whereas most hybrids created in Australia, New Zealand and South Africa are at least four generations ( $F_4$ ) removed. Our colleagues in Australasia are producing significantly more  $F_5$ -,  $F_6$ - and  $F_7$ -generation hybrids.

In the period from 2000 through 2015, there were 23 quality awards to  $F_4$  standards, 21 awards to  $F_5$  standards, and

[3] Natural spread aspect ratio. Photographs have been normalized by vertical natural spread. Left: *Cymbidium* Doris ‘Green-gold’ HCC/AOS of 78 points given in January, 2007; Aspect Ratio = 1.7. Right: *Cymbidium* Kirby Lesh ‘Cinnabar’ AM/AOS of 84 points given in January, 2002; Aspect Ratio = 1.0.

[4] Horizontal natural spread of quality awards. Photographs have been normalized by horizontal natural spread. Left: *Cymbidium* Anna Szabo ‘Geyserland’ HCC/AOS of 75 points given in April, 1999; NS = 2.56 in (6.5 cm). Right: *Cymbidium* Thanksgiving ‘Nativity’ AM/AOS of 83 points given in January, 1971; NS = 6.5 in (16.5 cm).

three awards to  $F_6$  standards. Although these hybrids may well, in fact, represent improvement in color, we are only seeing modest improvements in flower form.

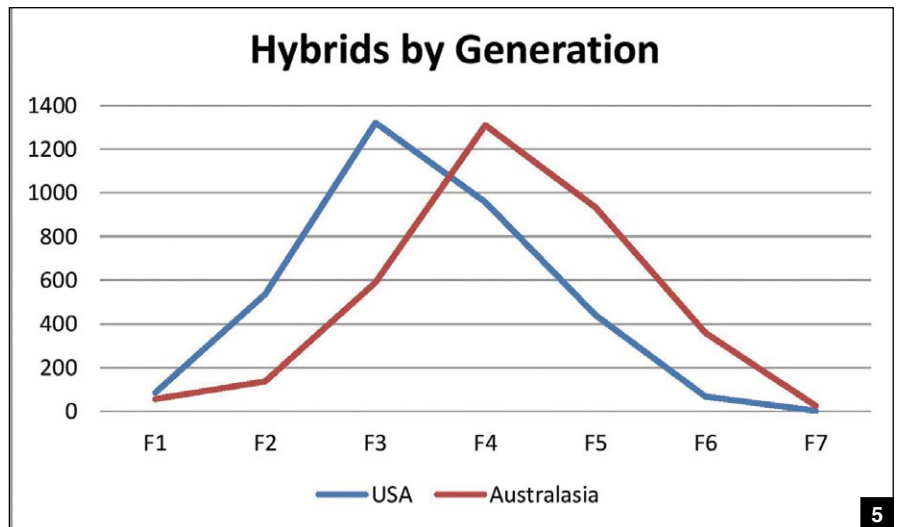
It is easy to identify flowers having clean, crisp, bold colors as motivation to further improve such qualities. Reds are darker. Whites are bright. Yellows are almost golden. Greens are nonstaining. Oranges are almost uniformly suffused. However, based on the award data, it also appears that improvement in form has been overlooked, or largely



Attribute	Generation		
	F4	F5	F6
Natural Spread, Horizontal	11	11	11
Natural Spread, Vertical	10	10	10
Overall Aspect Ratio	1.1	1.1	1.1
Dorsal Sepal Aspect Ratio	0.6	0.6	0.7
Petal Aspect Ratio	0.6	0.6	0.6
Lateral Sepal Aspect Ratio	0.6	0.7	0.7

**Table 6. AOS Awards to F4, F5, and F6 Hybrids**

ignored, while improving color. One can reasonably argue that we now have plenty of standard cymbidiums with high-quality color from which to use as parent stock for the creation of new hybrids possessing the combinations of superior natural spread aspect ratio (1.0), sepal aspect ratio greater than 0.7, and petal aspect ratio greater than 0.7444 in the same flower. The point is that we have achieved improved color. Now we need to be recognizing flowers with improved form, per the combinations of individual flower segment metrics.



— Kevin Hill has been growing cymbidiums since 1995, and is an accredited judge from the California-Sierra Nevada Judging Center. Kevin earned his Ph.D. in genetics, and is presently a biotechnology patent examiner at the U.S. Patent and Trademark Office. His perspective on evaluating orchids is strongly influenced by his scientific background in developmental biology and genetics. He finds thinking about the genetic basis

[5] Comparison of the number of cymbidium hybrids by generation for the United States and Australasia.

for controlling color patterns, and shapes of the sepals, petals and lips of orchid flowers to be a fascinating challenge (kkh.nykos@gmail.com).

## 18th Annual Native Orchid Conference



*Calypso bulbosa* var. *occidentalis*. Photograph by Raymond Prothero, Jr.

### Bruce Peninsula, Ontario, Canada June 14–17, 2019

Registration is limited to the first 100 people and registration will NOT be available at the door.

Two days of presentations, two days of field trips and an optional visit to Flowerpot Island

Full registration: US\$150/person

Student\* registration: US\$75/person

\*Available to any full-time students at any high school, college or university.

For convenience, electronic registration and a Paypal option are available.

For more information and registration visit [www.nativeorchid-conference.org](http://www.nativeorchid-conference.org)

# The Species Identification Task Force

## Photographs and Requirements

Text and photographs by Jay Norris

THE SPECIES IDENTIFICATION TASK Force (SITF) was created by the Judging Committee (JC) to confirm the identities of species awarded by the AOS. Previously, exhibitors had to contact accepted experts and often pay for an identification. As time progressed, there became fewer experts available to perform this task, and awards were languishing while waiting for identifications. With this in mind, the SITF was created. It was decided that the AOS should provide this service to exhibitors who receive awards, thus removing the onus from the exhibitor to have a plant identified.

Patricia Harding led the team initially and steered us for many successful years. In our current form, the SITF has many experts and dedicated orchid enthusiasts who have taken on the responsibility of confirming the identity of any questioned species that has been awarded. All awards to previously unawarded species must have their identity confirmed by the SITF, which naturally includes all CBR and CHM awards. Any judge on a team awarding a species that has been previously awarded also has the right to ask for verification of correct identification.

Critical to our ability to complete this task is the receipt by the SITF of sufficient documentation to make a proper diagnosis. With the advances in digital photography, it is easy to have all the required, salient features of a plant recorded. For us on the SITF, the more information we receive, the easier the process, and the more solid the diagnosis. The following is a list of what is required from judging teams when they award a plant that goes to the SITF.

- A photographic record of the plant is required and as much distinct detail as possible should be recorded. It takes only a few minutes more to document the information required. We need as *many images as possible*. Show photographers should be reminded that a single photo is not enough.
- Provide all the required award images as listed in the Judging Handbook.
- Take pictures of the entire plant in addition to its flowers.
- Take pictures of the leaves (are



they serrated?), the leaf tip (is it apiculate or bilobed?) and the petiole. Take some of these pictures with a ruler in the image.

- Next come the flower and inflorescence; if it is multifloral then take one photo showing the entire inflorescence so it shows the arrangement, a closer shot showing four or five flowers and their arrangement, and then a single flower.

- Take pictures from the front, side (profile), rear and even ¾-profile. These all show us specific aspects of

[1] Awarded, and subsequently verified, as the rare Cuban species *Encyilia navarroii*. A photograph taken from this distance is useful for getting a clear impression of inflorescence structure, presentation and scale relative to the plant.

[2] A clear picture of the pseudobulbs is often critical in distinguishing one species from another.





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the flower and take no extra time.

- You should also dissect the flower where possible, and photograph the segments laid out again with a ruler. It is convenient to use double-sided tape to affix the segments to a card with a ruler alongside. It is recommended that all judging centers own a simple dissection kit, available online or from scientific supply companies or in university bookstores.

- The most important part of the flower, diagnostically, is the lip. If the lip is not flat — and most are not, especially the side lobes — then remove the lip and let it wilt a bit. Then you can stick the lip onto a piece of tape to “flatten” the segments, resulting in an image which will match many botanical drawings. Crests (calli) are *critical*. Photographs need to be focused well enough to resolve these — shape, number, placement and even their absence can be critically important to diagnose some species.

With this information via photos, a detailed award description which includes a full description of the plant, and the SITF form, which is quite helpful, you will be providing as much information as possible to the SITF team. In many cases, identifications can be swiftly done, but



there will always be new, undescribed species that appear, or others for which the published record is so scant as to make decisions difficult. With the support of the JC and individual JC chairs and judges, we will be able to continue to provide this valuable service to our members.

— Jay Norris is an accredited judge and long-time award photographer in the Toronto Judging Center. He grows a variety of orchids including miniature species in Stratford, Ontario, and is co-owner of [ravenvision.ca](http://ravenvision.ca) which sells photography and growing supplies for Canadian hobby growers (email: [jay@ravenvision.ca](mailto:jay@ravenvision.ca)).

[3] Clear pictures of the side view of the flower provide details related to shape and texture of the ovary, sepals, petals and the side lobes of the lip.

[4] Leaf shape can be very important. In this particular species the most critical element in the identification was the observation by the judges that the leaf edges were somewhat rough. This feature is found only in two Cuban *Encyclia* species: *navarroi* and *triangulifera*.

[5] Detach the lip and flatten it on adhesive tape. It is the only way to truly determine the shape of the side lobes, midlobe and their relative dimensions and the shape of any crests.

# Special Orchids, Special People

## The 2017 American Orchid Society Annual Awards

BY NILE S. DUSDIEKER

EACH YEAR THE AOS Board of Trustees, upon the recommendations of the Judging Committee, bestows 21 special annual awards meant to recognize the best orchids awarded in the previous calendar year. These donor-endowed awards are named for people who have contributed greatly to the knowledge, education, culture and hybridization of orchids. The exhibitors whose orchids were chosen for these awards are a second group of special people. They receive a small monetary award or a trophy, a signed certificate and framed photograph of the winning orchid. Finally, all this would not be possible without the beautiful photographs taken of the awards at the time of initial judging by our skilled photographers.

### ANN AND PHIL JESUP BOTANICAL TROPHY

Given to the grower of the most outstanding orchid species awarded by the AOS during the previous year.

*Bulbophyllum cruentum* 'Raise the Red Lantern' AM/AOS (85) #20171286; Exhibitor, Jeff Tyler; Photographer, Ramon de los Santos; California Sierra Nevada Judging Center monthly judging, 9/6/17. Five concolor deep burgundy flowers shown on this unusual species that had only one prior flower quality award. The Jesups have, for decades, given of their time to promote the mission of the AOS including both serving as trustees, committee members, proofreaders for *Orchids* magazine and supporting the judging program of which Phil, now deceased, was a member. Jeff Tyler lives in Sacramento, California and considers himself mostly a hobbyist grower although he has a small online internet orchid business. He grows over 350 different species with emphasis on bulbophyllums. Jeff has received 56 AOS awards since 2006 and now receives the Butterworth Prize and the Thoms Award this year as well.



RAMON DE LOS SANTOS



TOM KULIGOWSKI



**BENJAMIN C. BERLINER  
AWARD**

Given to the grower of the most outstanding example of the genus *Lycaste* or its closely allied genera.

*Lycaste* Abou Rits 'Chief' AM/AOS (Abou First Spring × Chita Melody) (85) #20175568; Exhibitor, Cal-Orchid, Inc.; Photographer, Tom Kuligowski; Ft. Lauderdale Orchid Society Show, Ft. Lauderdale, Florida, 1/19/17. One large (5.2 inch; 13 cm), well-formed burgundy flower displayed beautifully. Benjamin Berliner (1917–2001) was a physician and world-renowned orchidist known for promoting orchid education and environmental conservation. James and Lauris Rose began their orchid careers in the 1970s working at the Santa Barbara Orchid Estate. In 1987 they established their current business, Cal-Orchid, Inc., nearby where it remains a family-owned business today. James travels widely to orchid shows and educational activities.

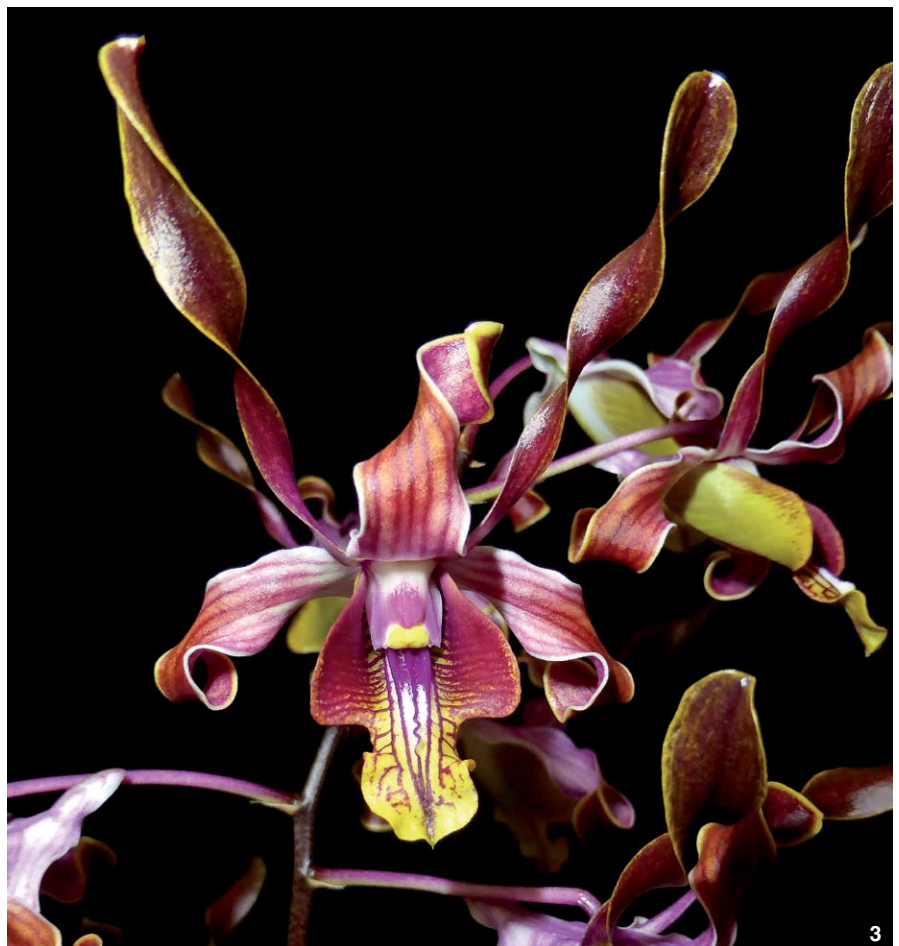
**BENJAMIN KODAMA  
AWARD**

Given to the grower of the most outstanding member of the *Dendrobium* Alliance.

*Dendrobium* Mah Bow Tan 'E Orchids' HCC/AOS (Jeffrey Tan × *lasianthera*) (78) #20174862; Exhibitor, Edwin Perez; Photographer, Irma Saldaña; Sociedad Orquidistas del Caribe, Guayama, Puerto Rico, 1/12/17. Fifteen charming mahogany flowers with twisted upright petals are typical of antelope dendrobiums. Benjamin T. Kodama Sr. (1925–2017) was a pioneer orchid grower and hybridizer in Hawaii. As a teenager he cleaned pots for 10 cents an hour. Later, he established the Kodama Orchid Nursery where he registered more than 500 new hybrids, many with "Hawaiian" in the name. He actively supported the Honolulu Orchid Society and the AOS, reaching a status of Emeritus Judge. He received the AOS Silver Medal in 1990 and Gold Medal 2007 for his service to the Society. Edwin Perez lives in Las Piedras, Puerto Rico, and has been growing orchids since his teenage years. He owns E. Orchids, a family retail orchid and floral business and is an Associate AOS judge. He has received 79 AOS awards in the past.

**THE BUTTERTH PRIZE  
AND BILL THOMS AWARD**

The Butterworth Prize was the first of the AOS's permanently endowed awards and is given to the grower of the plant exhibiting the finest orchid culture



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awarded in the preceding calendar year. The Thoms Award is given to the grower of the orchid regarded as the most outstanding example of the *Bulbophyllinae* (established 2007).

*Bulbophyllum falcatum* 'In Situ' HCC-CCE/AOS (78; 95) #20171254(55); Exhibitor, Jeff Tyler; Photographer: Ramon de los Santos; California Sierra Nevada

- [1] *Bulbophyllum cruentum* 'Raise the Red Lantern' AM/AOS
- [2] *Lycaste* Abou Rits 'Chief' AM/AOS (Abou First Spring × Chita Melody)
- [3] *Dendrobium* Mah Bow Tan 'E Orchids' HCC/AOS (Jeffrey Tan × *lasianthera*)
- [4] *Bulbophyllum falcatum* 'In Situ' HCC-CCE/AOS

Judging Center monthly judging, 5/3/17. This amazing plant had over 3,000 flowers on 157 inflorescences grown to perfection. The flowers appear along a flattened rachis that looks like a pea pod opening. The Butterworth Prize was established by Mrs. Rachel Butterworth Dietz in memory of her parents (John and Nancy Butterworth) and George Butterworth Sr., president of the AOS from 1953 to 1956 to recognize superlative culture. Jeff Tyler's many AOS awards attest to his extraordinary growing skills.

Bill Thoms is a renowned orchid grower, world traveler, and internationally recognized speaker on bulbophyllums. He lives in central Florida and has received 269 AOS awards to date. He is especially known for his cultural awards.

**CARLYLE A. LUER  
AWARD**

Given to the grower of the most outstanding member of the Pleurothallidinae.

*Masdevallia* Minaret 'Burrard Inlet' CCM/AOS (*calocodon* × *igneae*) (85) #20174354; Exhibitor, Joe Chow; Photographer, Judith Higham; Western Canada Judging Center, monthly judging, Richmond, British Columbia, 8/12/17. This beautiful, uniformly flowered plant had 135 pink, magenta-striped "cheery" flowers. Carlyle Luer is a botanist and physician who, upon his retirement as a physician, took up the study and illustration of orchids in 1975. He is currently in his 90s. His taxonomic work has inspired the explosive interest in pleurothallids in recent years. Joe Chow has been growing orchids for 25 years as a hobby. He lives near the southern tip of Vancouver Island, British Columbia. Summers are cool and a perfect place to grow his masdevallias outside from April to October.

**ERNEST HETHERINGTON  
AWARD**

Given to the grower of the orchid plant regarded as the most outstanding example of a *Cymbidium* species, *Cymbidium* hybrid or intergeneric hybrid involving a *Cymbidium*.

*Cymbidium* Two Cents Plain 'Sandra Lynne' AM/AOS (Main Squeeze × Tracey Reddaway) (81) #20174621; Exhibitor: George Nakayama; Photographer, Ramon de los Santos; Santa Barbara International Orchid Show, Santa Barbara, California, 3/16/17. This plant was awarded with 40 chartreuse flowers on three arched inflorescences. Ernest Hetherington (1917–2016) was a skilled and innovative



JUDITH HIGHAM



RAMON DE LOS SANTOS



JORGE ENRIQUE



hybridizer of mainly cymbidiums and cattleyas. He and his wife produced legendary catalogues for Stewart Orchids and helped organize the 1966 World Orchid Congress in Long Beach, California. This award was established and endowed by the Cymbidium Society of America in 2006 in his honor. George Nakayama has been an orchid hobbyist for over 50 years in the West Los Angeles area. He began hybridizing cymbidiums in the 1970s. This award winner was one of his own hybrids and registered in 2003.

**FRANK SR. AND ELIZABETH JASEN  
AWARD**

Given to the grower of the orchid plant regarded as the most outstanding example of the Stanhopea Alliance.

*Stanhopea wardii* 'Reina Isabel' AM/AOS (83) #20174995; Exhibitor, Leticia Gallegos; Photographer, Jorge Enrique: Asociacion Jueces de Orquideas de Costa Rica, San Jose, Costa Rica, 8/31/17 awarded through the Puerto Rico Judging Center. This plant had 14 golden-yellow flowers on two pendent inflorescences. Frank Jasen Sr. (1920–2012) was an avid amateur orchid grower of many varied genera. This award honors both, Frank, the grower that dares to grow unique and unusual orchids, and Elizabeth, the spouse that tolerates and helps nurture the grower's hobby. Leticia Gallegos Carrillo is a microbiologist living in Costa Rica where she has been growing orchids for over 10 years. This was her first AOS award!

LOIS CINERT



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**FRED HILLERMAN  
AWARD**

Given to the grower of the orchid plant regarded as the most outstanding example of the Angraecoid Alliance.

*Aerangis biloba* 'Winterfell' CCM/AOS (86) #20171526; Exhibitor, Orchids Limited; Photographer, Lois Cinert; Chicago Judging Center monthly judging, 9/9/17. This plant had 130 stellate white flowers on 11 inflorescences. Fred Hillerman was a teacher and businessman who loved to grow orchids, especially, those native to Africa and Madagascar. He did pioneering hybridization with angraecoids and had an unflinching commitment to the education of the public regarding these orchids. Jerry Fischer is owner and founder (1978) of Orchids Limited in Plymouth, Minnesota. He specializes in many unique orchids, including paphiopedilums and phragmipediums. He has received over 120 AOS awards and three previous AOS annual special awards.

TOMI KULIGOWSKI



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- [5] *Masdevallia* Minaret 'Burrard Inlet' CCM/AOS (*calocodon* × *ignea*)
- [6] *Cymbidium* Two Cents Plain 'Sandra Lynne' AM/AOS (Main Squeeze × Tracey Reddaway)
- [7] *Stanhopea wardii* 'Reina Isabel' AM/AOS
- [8] *Aerangis biloba* 'Winterfell' CCM/AOS
- [9] *Vanda* Will Riley 'Crownfox Raspberry' AM/AOS (Crownfox Gold × Crownfox Goliath)



**FUCHS FAMILY  
AWARD**

Given to the most outstanding example of the genus *Vanda* as currently circumscribed.

*Vanda* Will Riley 'Crownfox Raspberry' AM/AOS (Crownfox Gold × Crownfox Goliath) (82) #20175655; Exhibitor, R.F. Orchids, Inc; Photographer, Tom Kuligowski; Pan American Orchid Society Show, Homestead, Florida, 4/21/17. The plant had 10 full, flat flowers on one inflorescence. This award was endowed by the West Palm Beach Judging Center in 2016 to honor the Fuchs family for their hybrids, awards, and being great ambassadors for AOS over three generations.

**HERBERT HAGER  
AWARD**

Given to the grower of the orchid plant regarded as the most outstanding example of a *Phalaenopsis* species or hybrid.

*Phalaenopsis* Orient Empress 'K10' CCM/AOS (Sogo Yukidian × Sweet Wine) (85) #20175355; Exhibitor, Royal Base Corporation; Photographer, Jea Shang Photography. Taiwan International Orchid Show, Tainan, Taiwan, 3/2/17, sponsored by the Puerto Rico Judging Center. The plant had 54 pink flowers alternating perfectly on two, 78.7-inch (200-cm) arched inflorescences. International orchid shows may arrange to have AOS judging provided they have a sponsoring AOS Judging Center and AOS certified judges present at the show. This award was endowed by the International Phalaenopsis Alliance in 1992 to recognize the accomplishments of the late Herb Hager and his lifelong dedication to the advancement of orchids, especially *Phalaenopsis*, through pioneering hybridization and superior culture. The Royal Base Corporation is a commercial global phalaenopsis provider based in Taipei, Taiwan.

**JAMES AND MARIE RIOPELLE  
AWARD**

Given to recognize the most outstanding *Miltonia* or *Miltoniopsis* species or hybrid.

*Miltoniopsis* Bert Field 'Ono' CCM/AOS (Mulatto Queen × Woodlands) (80) #20172994; Exhibitor, Loretta Ricketts; Photographer, Glen Barfield: Hawaii Judging Center monthly judging in Hilo, 9/9/17. This heritage hybrid grex dates to 1965 and was awarded with 57 flowers densely arranged on 15 inflorescences.



JEA SHANG



GLEN BARFIELD



Interestingly, this clone and one named 'Riopelle' were first awarded in 1965. This award is named in memory of Marie and James Riopelle, in recognition of their dedication to the advancement of orchids, especially *Miltonia*, through the years. Loretta Ricketts is a hobby orchid enthusiast living in Volcano, Hawaii. She has been growing orchids for over 50 years and likes her current location's cool, damp climate; ideal for growing *Miltoniopsis* (except when the volcano erupts)!

**MARTIN MOTES ORCHID BREEDER'S AWARD**

This new AOS annual award is given to the breeder *and* exhibitor of the best Award of Quality or Award of Distinction given during the previous calendar year.

*Vanda* Will Riley (Crownfox Gold 'Elegant' FCC/AOS x Crownfox Goliath 'Full Moon' AM/AOS) AQ/AOS #20175656; Exhibitor, R.F. Orchids, Inc; Photographer, Tom Kuligowski; Pan American Orchid Society Show, Homestead, Florida, 4/21/17. R.F. Orchids presented this group of 12 plants with an average of nine full, flat, rounded flowers per inflorescence, displaying superior form as well as outstanding color ranging from copper tones to red raspberry. Individual plants in this grouping also received four AOS flower quality awards. Martin Motes has been growing orchids for over 40 years and is a major breeder of vandaceous orchids. He is an AOS judge and has received over 250 AOS awards including three AOs recognizing his hybrids. His business, Motes Orchids, is in Redland, Florida. R.F. Orchids received four special annual awards this year.

TOM KULIGOWSKI



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**MASATOSHI MIYAMOTO AWARD**

Given to the grower of the most outstanding member of the *Cattleya* Alliance.

*Cattleya* Lacey Michelle Matherne 'Drey Winter' AM/AOS (*aclandiae* x *tigrina*) (82) #20171335; Exhibitor, Krull-Smith; Photographer, Julie McMillan; Western North Carolina Orchid Society Show, Asheville, North Carolina, 3/24/17. This primary hybrid showed four, vibrantly colored flowers on a single inflorescence. Mr. Miyamoto (1914–1991) owned and operated Miyamoto Orchids in Waianae, Hawaii. Often called "Miya," he started as a driver for another orchidist and progressed to become a pre-eminent *cattleya* breeder with emphasis on yellow and art shade colors. Frank Smith and Jim Krull started as a small orchid nursery in

JULIE MCMILLAN



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Apopka, Florida 40 years ago. Now known as Krull-Smith, they have become leading orchid hybridizers for award-quality show plants, having received over 1,200 awards from the AOS to date. Frank Smith is a past president of the AOS.

**MERRITT W. HUNTINGTON AWARD**

This award recognizes the most outstanding plant awarded a First Class Certificate, (the highest AOS flower quality award).

*Pescatoria* Alice Hipkins 'San Isidro' FCC/AOS (*lehmannii* x *coelestis*) (93), #20175694; Exhibitor, Daniel Piedrahita; Photographer; Nicolas Gomez; Sociedad Colombiana de Orquideologia Show, Medellín, Columbia, 8/1/17; sponsored by the West Palm Beach Judging Center. The plant had four large (4.3-in.; 11-cm wide), vibrant royal-purple flowers. Merritt Huntington (1927–2005) grew

- [10] *Phalaenopsis* Orient Empress 'K10' CCM/AOS (Sogo Yukidian x Sweet Wine)
- [11] *Miltoniopsis* Bert Field 'Ono' CCM/AOS (Mulatto Queen x Woodlands)
- [12] *Vanda* Will Riley (Crownfox Gold 'Elegant' FCC/AOS x Crownfox Goliath 'Full Moon' AM/AOS) AQ/AOS
- [13] *Cattleya* Lacey Michelle Matherne 'Drey Winter' AM/AOS (*aclandiae* x *tigrina*)

up in Springfield, New Jersey, later establishing Kensington Orchids in Kensington, Maryland. He helped found the first AOS Judging Center in New York. Prior to that time, show organizers picked knowledgeable orchid people to judge their own shows around the country. Merritt was an active AOS judge from the early 1950s, became an AOS Trustee in 1967, and President of the AOS in 1974. He received the prestigious Gold Medal for service in 1983. Daniel Piedrahita



is a prominent orchidist in Medellin, Columbia, and has 58 AOS awards including three FCCs to his credit, all from AOS-judged international shows.

#### MILTON CARPENTER AWARD

Given to the grower of the orchid plant regarded as the preceding year's most outstanding example of intergeneric hybridizing within the Oncidiinae.

*Brassidium* Gilded Urchin 'Brianna' AM/AOS (*Brassia arcuigera* × *Oncidium wentworthianum*) (81) #20174917; Exhibitor, Carmen Flores Porras; Photographer, Jorge Enrique Céspedes Trigueros; Asociacion Acostena de Orquideologia, San Jose, Costa Rica, 2/16/17; sponsored by the Puerto Rico Judging Center. This plant had nine stellate, canary-yellow flowers on one inflorescence and is a classic "spider orchid." A native of the Florida everglades, Milton Carpenter, currently in his 90s, has been growing orchids for 50 years and owned Everglades Orchids in Belle Glade, Florida. Even though his retail business is closed he continues oncidium and cymbidium hybridizing with the goal of developing warmth-tolerant hybrids. He is past president, trustee, and judge emeritus in the American Orchid Society. He still goes regularly to monthly AOS judging. Carmen Flores Porras lives in San Jose, Costa Rica. About eight years ago, she began with a small private collection, which has since grown. She is active in orchid societies in her country and has received four AOS awards to date.

#### PAUL AND MARY STORM AWARD

This is a new award given to the grower of the orchid plant regarded as the most outstanding example of a hybrid with at least one valid *Myrmecophila* species or former *Schomburgkia* (now *Laelia*) species in its background.

*Rechingerara* Honky Tonk Woman 'Crownfox' AM/AOS (*Laelia undulata* × *Rhyncattleanthe* Bouton D'Or) (82) #20175717; Exhibitor, R.F. Orchids, Inc; Photographer, Tom Kuligowski; West Palm Beach Center monthly judging, 3/25/17. This plant had 12 brick-red flowers on two prominent inflorescences.

Paul and Mary Storm of Sarasota, Florida have what is believed to be one of the largest collections of *Schomburgkia/Laelia* and *Myrmecophila* species and hybrids in the world. Paul does educational activities and promotes these genera that are not meant to be "round and flat" but



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NICOLAS GOMEZ



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JORGE ENRIQUE CÉSPEDES



can be truly brilliant in bloom. R.F. Orchids has received four special annual awards this year.

**ROBERT B. DUGGER  
AWARD**

Given to the grower of the most outstanding example of the Odontoglossum Alliance.

*Oncidium* Pui Chin 'Flying Tiger' AM/AOS (*tigrinum* × Golden Dawn [1980]) (88) #20171642; Exhibitor, New Vision Orchids; Photographer, Richard Noel; Greater Cincinnati Orchid Society Show, Cincinnati, Ohio, 3/11/17. This plant had 31 very flat, strikingly displayed yellow and mahogany flowers on one branched, arched inflorescence. To qualify for this award, the plant must have a species that was called *Odontoglossum* in its pedigree prior to the recent taxonomic changes that moved most to the genus *Oncidium*. This award honors the work of a man who was responsible for the 1980s renaissance in odontoglossums. Russ Vernon has been fascinated by the former odontoglossums since he was about 14 and has been growing them commercially since 2004 (New Vision Orchids, located near Muncie, Indiana). He has been active in the Mid-America Orchid Congress. He has received three prior Dugger awards in addition to 72 other AOS awards.

**ROY T. FUKUMURA  
AWARD**

This award recognizes the most outstanding vandaceous orchid (including intergeneric hybrids).

*Perreiraara* Hot Lips 'Copper Bird' AM/AOS (*Vandachostylis* Blue Rajah × *Perreiraara* Bangkok Sunset) (83) #20175799; Exhibitor, R.F. Orchids, Inc; Photographer, Tom Kuligowski; West Palm Beach Judging Center, monthly judging, 8/26/17. This plant had 20 round, well-presented flowers with bright fuchsia lips on one inflorescence. The Roy Fukumura Award honors his lifetime accomplishments hybridizing vandas in Hawaii. He founded of the Maui Orchid Society and received an AOS Silver Medal for service to the AOS in 1990. Robert Fuchs is the proprietor of R.F. Orchids, Homestead, Florida. Robert refurbished and opened the business in 1970 on property of his grandparents. He was a secondary school teacher until 1985 when he decided to devote all his time to the nursery. He has been active in the AOS and currently is a vice president. He has received over 1,200 AOS awards and multiple AOS special annual awards,



TOM KULIGOWSKI

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RICHARD NOEL

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TOM KULIGOWSKI

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- [14] *Pescatoria* Alice Hipkins 'San Isidro' FCC/AOS (*lehmannii* × *coelestis*)
- [15] *Brassidium* Gilded Urchin 'Brianna' AM/AOS (*Brassia arcuigera* × *Oncidium wentworthianum*)
- [16] *Rechingera* Honky Tonk Woman 'Crownfox' AM/AOS (*Laelia undulata* × *Rhyncattleanthe Bouton D'Or*)
- [17] *Oncidium* Pui Chin 'Flying Tiger' AM/AOS (*tigrinum* × Golden Dawn [1980])
- [18] *Perreiraara* Hot Lips 'Copper Bird' AM/AOS (*Vandachostylis* Blue Rajah × *Perreiraara* Bangkok Sunset)







including the Fukumura five times in the past.

#### WALTER OFF EXHIBIT AWARD

Another first-year award, this award recognizes the most outstanding orchid exhibit (Show Trophy, Silver or Gold Certificate, or Educational Award) given at an AOS-sanctioned orchid show in the United States and Canada the previous calendar year.

AOS Show Trophy, Gold Certificate 'Western North Carolina Orchid Society' ST-GC/AOS (91) #20171346; Exhibitor, Western North Carolina Orchid Society; Photographer, Julie McMillan; Western North Carolina Orchid Society show, Asheville, North Carolina, 3/24/17. The display had over 200 square feet (18.6 sq m) of high quality orchids arranged around a Chinese arch. Walter Off was an AOS judge and president of Waldor Orchids, Linwood, New Jersey. He served as head of the Mid-Atlantic Judging Center and instructed others on how to exhibit orchids effectively. The Western North Carolina Orchid Society has sponsored their home show for the past 21 years at the North Carolina Arboretum in Asheville. They have received multiple show trophies for their displays, but 2017 was the first Gold Certificate and now the first Walter Off Award.

#### W.W. WILSON AWARD

Given to the grower of the most outstanding example of Cypripedioideae.

*Paphiopedilum* Michael Koopowitz 'M' AM/AOS (*philippinense* × *sanderianum*) (83) #20175303; Exhibitor, Ho, De-Ming; Photographer, Jea Shang Photography; Taiwan International Orchid Show, Tainan, Taiwan; sponsored by Puerto Rico Judging Center, 3/2/17. This plant had 17 beautiful flowers with impressive long, twisted petals on three staked inflorescences. W.W. Wilson (1917–2014) was a distinguished neurologist and psychiatrist whose hobby was growing *paphiopedilums*. He formed Penn Valley Orchids, in Pennsylvania in 1940 and made hundreds of his own crosses, typically giving them Native American names. He received over 350 AOS awards from 1965 to 2009. The quality of orchids exhibited at the Taiwan International Show must be impressive based on the two annual special awards received this year.

#### References

- American Orchid Society. 2018. *Orchids Plus*, Version 1.4. Available online or software from American Orchid Society, Coral Gables, Florida.
- OrchidWiz. 2018. *OrchidWiz Encyclopedia*, Version 5.1. OrchidWiz LLC, Louisville, Colorado.
- Personal communications with exhibitors, orchid growers and AOS personnel; review of online public documents, orchid nursery websites and AOS.org.

— Nile Dusdieker is a retired physician and an accredited American Orchid Society judge associated with the Chicago judging center. He and his wife, Lois, grow

- [19] *Paphiopedilum* Michael Koopowitz 'M' AM/AOS (*philippinense* × *sanderianum*)
- [20] AOS Show Trophy, Gold Certificate 'Western North Carolina Orchid Society' ST-GC/AOS

around 900 orchids of varied genera in a greenhouse atop their third garage at their North Liberty, Iowa home. Most of the orchids move to an outside pergola for the summer months. Nile enjoys giving presentations on a wide variety of orchid topics and has presented at international meetings ([niledusdieker@gmail.com](mailto:niledusdieker@gmail.com)).

# Look Twice, Think Thrice

The 2018 First Class Certificates

BY CAROL KLONOWSKI





EVALUATING AN ORCHID for a flower quality award involves a great deal of looking and, in some cases, downright gawking. Doing a double take on an exceptionally grown orchid is not unusual, sometimes prompting judges and exhibitors alike to use the term “wow factor” for outstanding examples.

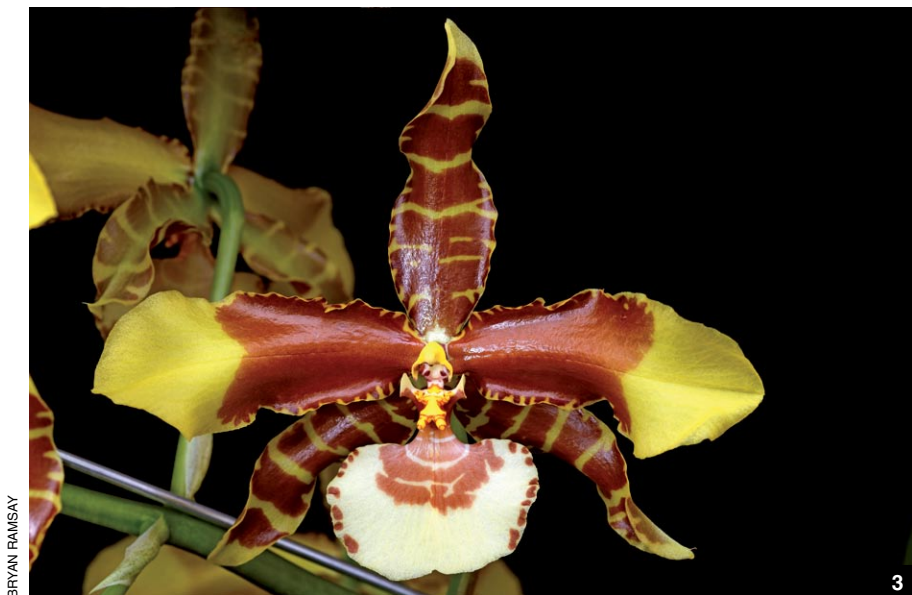
But then the thinking begins. The AOS judging score sheet for quality awards has three sections: one each for form and color and a third section based on characteristics such as size, habit, stem, floriferousness, substance and texture. The end result is a number that determines whether the plant is awarded, and if so, how high. A score of 89.5 (rounded to 90) or higher on a scale of 100 receives a First Class Certificate (FCC).

There were 52 FCCs awarded in 2018, consisting of 16 species and 36 hybrids, unchanged in total from 2017. However, it is impressive considering the absence of any awards from the 2018 Taiwan International Orchid Show (TIOS). No AOS judging took place in that spectacular venue in 2018, while 12 FCCs came from their previous annual spring show in 2017.

An FCC from the AOS is a rare and special thing. But rare and special things deserve a second look, and so we bring to you the 2018 FCCs for your review and pleasure.

*Cattleya schilleriana* ‘Palmares’ exhibited by Alejandro Rodriguez Cheung in Costa Rica went from an Award of Merit in 2013 to an FCC in February 2018. The judges noted the number of flowers and improvement in form for raising the previous award from 86 points to 90.

Draculas are usually displayed only in South American shows or other cooler-growing areas of the world. In 2018 we have two FCCs from a genus notorious for its challenges in getting to the judging table in prime condition: *Dracula* Maltese Falcon and *Dracula simia* in our list. They are polar opposites: *Dracula* Maltese Falcon ‘Bogey’ (Raven x *roezlii*) is a hybrid that was grown literally on the edge of the Pacific Ocean in California. Exhibited by John Leathers, it held a saturated-black flower and was displayed in a large Wardian case to maintain humidity. It had a single, massive flower of 5.6 by 10.3 inches (14.1 by 26.2 cm) in natural spread and was one of the two highest-scoring FCCs in 2018 with 95 points (the other is *Rossioglossum* Rawdon Jester ‘Carlisle’ FCC/AOS (95) (*grande* x *williamsianum*) shown by Floradise Orchids/Stephen Shifflett.



JORGE ENRIQUE CESPEDES TRIGUERO

BRYAN PAINSAY

NICOLAS GÓMEZ RIOS

- [1] *Dracula* Maltese Falcon ‘Bogey’ FCC/AOS (Raven x *roezlii*); John Leathers exhibitor. Photograph by Ken Jacobsen.
- [2] *Cattleya schilleriana* ‘Palmares’ FCC/AOS; Alejandro Rodriguez Cheung exhibitor.
- [3] *Rossioglossum* Rawdon Jester ‘Carlisle’ FCC/AOS (*grande* x *Williamsianum*); Stephen Shifflett, Floradise Orchids, exhibitor.
- [4] *Dracula simia* ‘Entreflores’ FCC/AOS; Daniel Piedrahita exhibitor.



*Dracula simia* 'Entreflores', on the other hand, comes from mountain cloud forests and carried an impressive 16 white-and-maroon flowers and 14 buds on 30 inflorescences. It was exhibited by Daniel Piedrahita in Medellín, Colombia, and earned a Certificate of Cultural Excellence (91) along with the first ever FCC for this charming species.

A *Tolumnia* received its first FCC since 1990 in the form of *Tolumnia* SIO's June Marie 'Oceanview' (Buck Hollow × Anita) and was exhibited by Alex Nadzan. The judges gave it 91 points and noted not only the exceptional color, form and size of the flowers, but also their arrangement for a genus that typically crowds its blooms at the end of the inflorescence.

Slipper orchids once again got the most FCCs for 2018, with paphiopedilums receiving 21 and phragmipediums three, nearly 50% of the total. Multifloral paphiopedilums were well represented by several *Paphiopedilum rothschildianum* and its hybrids. Two examples of *Paph. rothschildianum* were given FCCs at the same show in Tallahassee, Florida, showing the results of line breeding to this important species.

The awards went to cultivars 'Vivian Arnold' (91) and 'Deborah Henderson' (90), both exhibited by James Arnold. Although the former held only four flowers, they were large (12.2- × 5-in [31- × 12.8-cm] natural spread) and the judges noted the elegantly held petals. 'Deborah Henderson', by contrast, held seven lovely flowers on two nearly 22-inch (56-cm) inflorescences, further upping the bar on multifloral floriferousness.

*Paphiopedilum gigantifolium*, a relatively new species for multifloral breeding, was used in two primary hybrids to create stunning results: *Paphiopedilum* Chiu Hua Dancer 'Golden Seven' (exhibited by Hilo Orchid Farm) is a cross between *Paph. gigantifolium* and *Paphiopedilum sanderianum*, while *Paphiopedilum* Hung Sheng Eagle 'Crystelle' (exhibited by Krull-Smith) is a cross of *Paph. gigantifolium* with *Paph. rothschildianum*. Both earned 90 points and show the influence of *Paph. gigantifolium* for graceful curling in the petals.

Single-flowered paphiopedilums can also have their own "wow factor." *Paphiopedilum* Dark Destiny 'Oh My' is a cross between a primary hybrid of *Paphiopedilum callosum* and *Paphiopedilum sukhakulii* (*Paphiopedilum* Montagnard) and *Paphiopedilum* Black Wizard. The flower was described as a lovely maroon-and-white color with wide,



ARNOLD GUM



WALT WAGER



WALT WAGER



distinctive petals on a 12-inch (30.5-cm) stem. The judges gave it 92 points for exhibitor Marriott Orchids/Hadley Cash.

*Paphiopedilum* Firecatcher 'Screamer' (Orchilla × Hsinying Charles), also exhibited by Marriott Orchids/Hadley Cash, received 90 points for a flat, saturated, plum-red vinicolor marvel that was held on an 11-inch (28-cm) inflorescence.

*Paphiopedilum hirsutissimum* f. *alboviride* 'Sam's Choice' reverses the color perspective from the previous paragraphs by having had a large, striking green-and-cream album flower with distinctive undulate petal margins. Orchid Inn, Ltd., exhibited the plant, which received 92 points.

*Phragmipedium* Sue Omeis 'Pride of Mingoville' FCC/AOS also got 92 points for an amazing plant carrying six bright-red flowers and six buds held well above the foliage that also garnered a Certificate of Cultural Merit for the exhibitor, Woodstream Orchids.

Although slipper orchids continued to dominate the FCC list, phalaenopsis orchids had far fewer awards than 2017, when they received six FCCs at the TIOS. As mentioned previously, AOS judging did not take place at the 2018 TIOS. Even so, we still saw two outstanding examples of new phalaenopsis breeding examples in our FCC list.

*Phalaenopsis* Mituo King Bellina 'Marley' (92) comes from North Carolina and was exhibited by Mike Mims. It is a hybrid using parents from the *Polychilos* section of the genus, which produces some of the most full, fragrant, vividly marked flowers in the genus.

*Phalaenopsis* Citrus Candy 'Crystelle' (91) brings Tying Shin breeding from Taiwan to Florida where it is grown and was exhibited by Krull-Smith. It carried an amazing 26 well-shingled flowers. The art-shade color for this novelty phalaenopsis is enhanced by the crystalline texture.

Another exceptional example of breeding is *Dendrobium* Kirkland Nixon 'Bredren' (93), exhibited by Bredren Orchids and Phillip Hamilton. The judges noted it is much superior to either of its parents. This antelope-type hybrid carried 25 uniformly twisted, dark-rose-purple flowers on two inflorescences.

*Aerides lawrenceae* 'Crownfox Magic' FCC/AOS (92) was recognized by the judges for exceptional color, size and flower conformation. Part of an Award of Quality (AQ) that exhibitor RF Orchids received, it is a cross of cultivars 'Crownfox Delight' and 'Crownfox Fuchsia'. The AQ is given to a group of at least 12 plants from



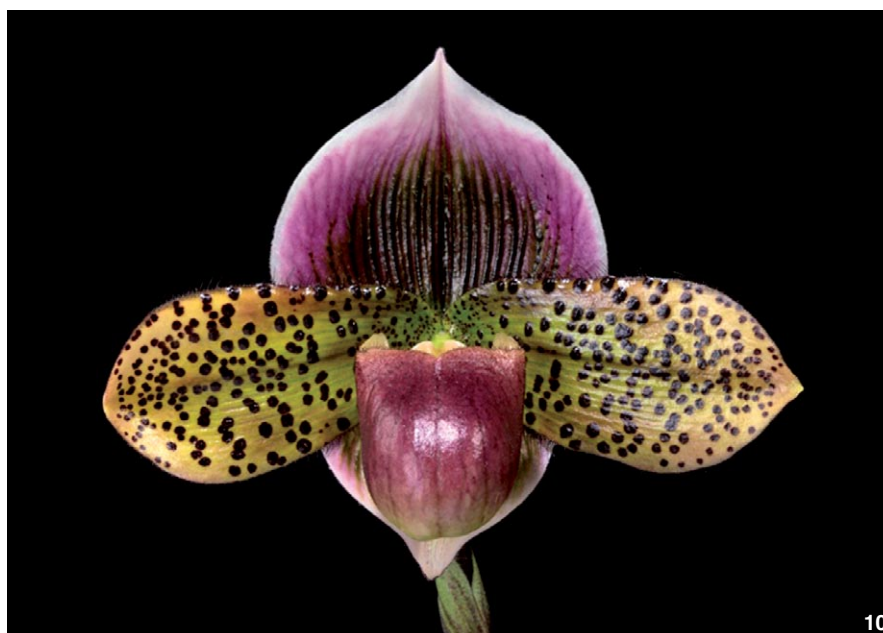
BRIAN MONK

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GLEN BARFIELD

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KIM FRANKENFIELD

10



BRYAN RAMSAY

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- [5] *Tolumnia* SIO's June Marie 'Oceanview' FCC/AOS (Buck Hollow × Anita); Alex Nadzan exhibitor.
- [6] *Paphiopedilum rothschildianum* 'Vivian Arnold' FCC/AOS; James Arnold exhibitor.
- [7] *Paphiopedilum rothschildianum* 'Deborah Henderson' FCC/AOS James Arnold exhibitor.
- [8] *Paphiopedilum* Hung Sheng Eagle 'Crystelle' FCC/AOS (*gigantifolium* × *rothschildianum*); Krull-Smith exhibitor.
- [9] *Paphiopedilum* Chiu Hua Dancer 'Golden Seven' FCC/AOS (*gigantifolium* × *sanderianum*); Hilo Orchid Farm exhibitor.
- [10] *Paphiopedilum* Dark Destiny 'Oh My' FCC/AOS (Montagnard × Black Wizard); Hadley Cash, Marriott Orchids exhibitor.
- [11] *Paphiopedilum* Firecatcher 'Screamer' FCC/AOS (Orchilla × Hsinying Charles); Hadley Cash, Marriott Orchids, exhibitor.

a single capsule and requires at least one flower-quality award within the group.

We hope you enjoy taking a first, and perhaps second, look at our FCC winners for 2018 and admire the threefold qualities of form, color, and plant characteristics that made these orchids the best of the year.

— Carol Klonowski has been growing orchids since the 1980's in Northern California and has served as director, vice-president, and president of the Orchid Society of California for most of the past two decades. She is currently an accredited Judge in the AOS, California-Sierra Nevada Judging Center (cklonowski@aol.com).



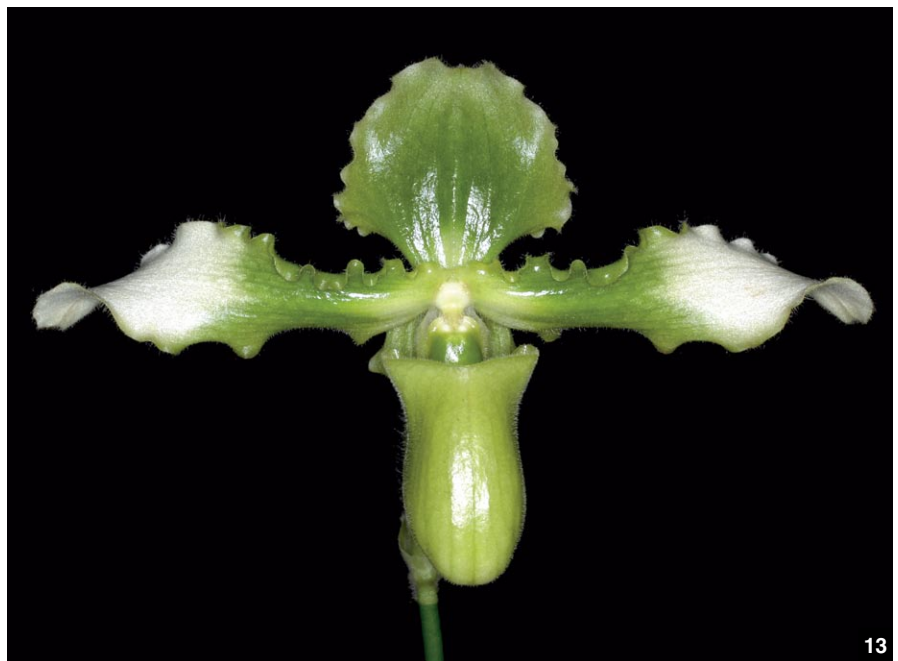
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JUDITH HIGHAM



14

JULIE MCMILLAN



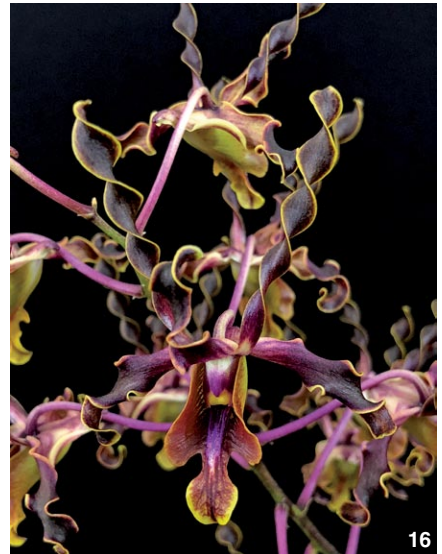
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KATIE PAYEUR



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TOM KULIGOWSKI



16

WES NEWTON

[12] *Paphiopedilum wilhelminae* 'Ibn's Magic Touch' FCC/AOS; Sasha Kubicek exhibitor.

[13] *Paphiopedilum hirsutissimum* f. *albiviride* 'Sam's Choice' FCC/AOS; Sam Tsui, Orchid Inn, Ltd., exhibitor.

[14] *Phragmipedium* Sue Omeis 'Pride of Mingoville' FCC/AOS (Saint's Apprentice x Lynn Evans-Goldner); Woodstream Orchids exhibitor.

[15] *Aerides lawrenceae* 'Crownfox Magic' FCC/AOS; RF Orchids, Inc., exhibitor.

[16] *Dendrobium* Kirkland Nixon 'Bredren' FCC/AOS (Hamlyn Double Helix x Colleen Hopkinson); Phillip Hamilton, Bredren Orchids, exhibitor.

[17] *Phalaenopsis* Mituo King Bellina 'Marley' FCC/AOS (LD's Bear King x LD Bellina Eagle); Mike Mims exhibitor.



17

JULIE MCMILLAN





WES NEWTON

18



TOM KULIGOWSKI

19



TOM KULIGOWSKI

20



NICK NIKERSON

21



JORGE CARLOS

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- [18] *Phalaenopsis* Citrus Candy 'Crystelle' FCC/AOS (Tying Shin Forever Love x Tying Shin Golden City) exhibitor Krull-Smith.
- [19] *Rhynchostylis gigantea* 'Diana' FCC/AOS exhibitor Carib Plants, Inc.
- [20] *Rhynchostylis gigantea* 'Claire de Lune' FCC/AOS exhibitor Claire Garrett.
- [21] *Guaricyclia* Honey 'Bonnie' FCC/AOS (Rosita x *Gur. aurantiaca*) exhibitor Bonnie and Will Riley.
- [22] *Lycaste* Shoalhaven 'Cali Bianchi 1802' FCC/AOS (*virginialis* x Koolena) exhibitor Carlos Bianchi.
- [23] *Cattleya lueddemanniana* (Coerulea) 'Jean Gilliland' FCC/AOS exhibitor Krull-Smith



TOM KULIGOWSKI

23





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NICOLAS GOMEZ RIOS



25

MARCUS VALENTINE



26

TOM KULIGOWSKI



27

NICOLAS GOMEZ RIOS

[24] *Bulbophyllum claptonense* 'Libia' FCC/AOS; Diana Garcia exhibitor.

[25] *Vanda* Ray's Just Begun 'Pottsy's Annette' FCC/AOS (Orange Glow x Kultura); Ray and Annette Potts exhibitors.

[26] *Angraecum Longidale* 'Bonnie' FCC/AOS (*sesquipedale* x *longicalcar*); Bonnie and Will Riley exhibitors.

[27] *Cattleya* Lemon Whisper 'Carlos Arango' FCC/AOS (Fred Cole x *bicolor*); Jardines Romeral exhibitor.

[28] *Paphiopedilum* Harold Koopowitz 'Jim Krull' FCC/AOS (*malipoense* x *rothschildianum*); Krull-Smith exhibitor.

*dianum*); Krull-Smith exhibitor.

[30] *Vanda* Will Riley 'Crownfox Big Boy' FCC/AOS (Crownfox Gold x Crownfox Goliath); RF Orchids, Inc., exhibitor.

[30] *Paphiopedilum* Krull's Prometheus 'Crystelle' FCC/AOS (Jan Ragan x *rothschildianum*); Krull-Smith exhibitor.

[31] *Paphiopedilum* Krull's Lady 'Krull's Perfection' FCC/AOS (Lady Isabel x Booth's Stone-Lady); Krull-Smith exhibitor.

[32] *Phragmipedium* Sorcerer's Apprentice 'Willowcreek' FCC/AOS (*longifolium* x *sargentianum*); Jay Klock exhibitor.



BRIAN MONK



28

BRIAN MONK



30

WES NEWTON



31

TOM KULIGOWSKI



29

RAMON DE LOS SANTOS



32





33

RAMON DE LOS SANTOS



34

BRIAN MONK



35

BRIAN MONK



36

JORGE ENRIQUE CÉSPEDES TRIGUERO



37

CLAUDE W. HAMILTON



38

H.A. RUSSELL, III



39

JORGE ENRIQUE CÉSPEDES TRIGUERO

- [33] *Paphiopedilum* Franz Glanz 'Monster' FCC/AOS (*armeniicum* × *emersonii*); Ramon de los Santos exhibitor.
- [34] *Paphiopedilum* Lovely Meadow 'Crystelle' FCC/AOS (Mountain Meadow × Stone Lovely); Krull-Smith exhibitor.
- [35] *Paphiopedilum* Pacific Shamrock 'Crystelle' FCC/AOS (Adilene Bobadilla × Emerald Magic); Krull-Smith exhibitor.
- [36] *Guarianthe skinneri* 'Ledezma' FCC/AOS; Magdalena Ledezma exhibitor.
- [37] *Vanda* Jamaica Pixie 'Jamaica' FCC/AOS (Jennie Gold × *lamellata*); Claude W. Hamilton exhibitor.
- [38] *Dendrobium farmeri* 'Mac's First' FCC/AOS; Mac's Orchids exhibitor.
- [39] *Cattleya* Beaumesnil 'Juan José' FCC/AOS (*Culminant* × *loddigesii*); Juan J. Zuñiga exhibitor.



GLEN BARFIELD



40

BRYON RINKE



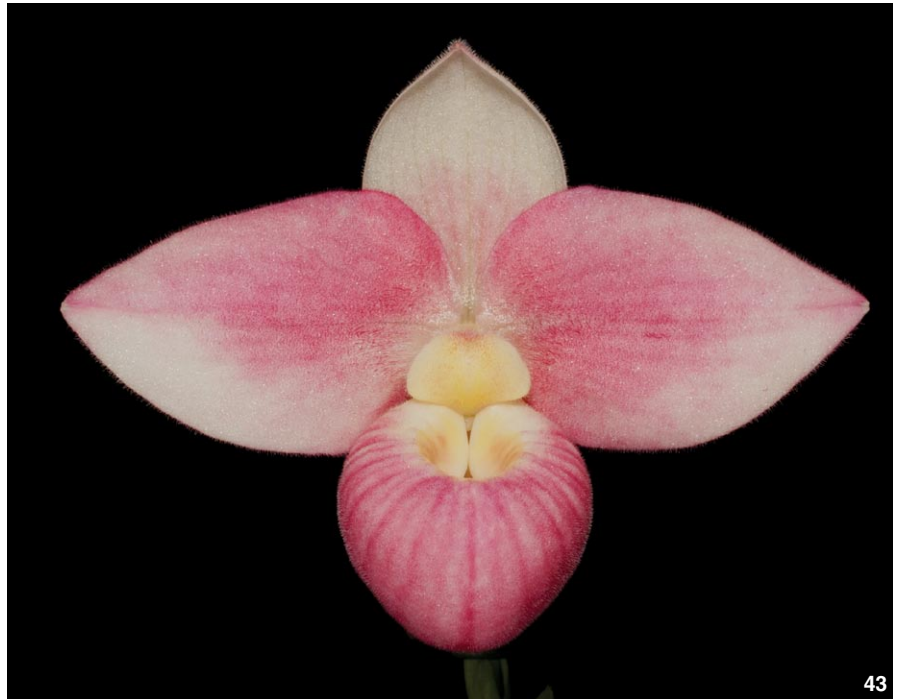
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GLEN BARFIELD



42

JAMES WINNER



43

BRYAN RAMSAY



44

LORNA MAZZA



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- [40] *Paphiopedilum* Shin-Yi Williams 'Golden Wings' FCC/AOS (William Ambler × *rothschildianum*); Hilo Orchid Farm exhibitor.
- [41] *Paphiopedilum* Frank Smith 'Max Thompson' FCC/AOS (Norito Hasegawa × *rothschildianum*); Max C. Thompson exhibitor.
- [42] *Laelia anceps* 'Mirtha Isabel' FCC/AOS; Orchid Eros exhibitor.
- [43] *Phragmipedium* April Fool 'Woodstream' FCC/AOS (Cardinale × *besseae*); Woodstream Orchids exhibitor.
- [44] *Paphiopedilum* Frank Smith 'St. Leonard Creek' FCC/AOS; Nancy Mountford exhibitor.
- [45] *Encyclia cordigera* var. *rosea* 'Liz Hamilton' FCC/AOS; Phillip Hamilton, Bredren Orchids, exhibitor.



46

BRYAN RAMSAY



47

CHARLES MARDEN FITCH



49

ARNOLD GUM

- [46] *Paphiopedilum* Spring Egret 'Penns View' FCC/AOS (Egret's Moon x Spring Wolf); Woodstream Orchids exhibitor.
- [47] *Paphiopedilum* Magic Lantern 'Georgie Girl' FCC/AOS (*micranthum* x *deleanii*); Patricia Freeland exhibitor.
- [48] *Masdevallia* Gypsy 'HOF' FCC/AOS (Rubicon x Patricia Hill); Longwood Gardens exhibitor.
- [49] *Paphiopedilum* Mojito Festival 'Bravo Orchids' FCC/AOS (Hilo Mojito x Hilo Key Lime); William Tse exhibitor.
- [50] *Vanda falcata* 'Paul Gripp' FCC/AOS; Santa Barbara Orchid Estate exhibitor.
- [51] *Masdevallia* Redshine 'Casuka' FCC/AOS (Falcon Sunrise x Marguerite); Masaki Asuka exhibitor.
- [52] *Paphiopedilum* Robinianum 'Gayle's Cinderella Slippers' FCC/AOS (*lowii* x *parishii*); Gayle Brodie exhibitor.



48

MAURICE MARIETTI



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LARRY VIERHELIG



CHAUNIE LANGLAND

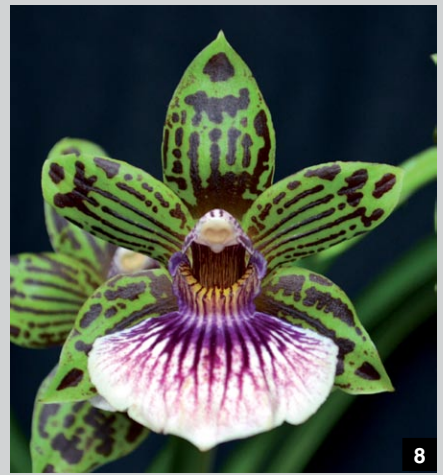


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ARTHUR PINKERS



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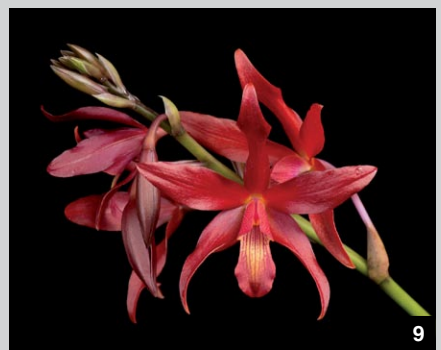






- [1] *Paphiopedilum* Julius 'Looking Glass Orchids' HCC/AOS (*lowii* x *rothschildianum*) 79 pts. Exhibitor: Looking Glass Orchids; photographer: James Curtis. Carolinas Judging Center
- [2] *Cattleya schroederae* 'Reina Vanesa' CHM/AOS 85 pts. Exhibitor: William Rogerson; photographer: Nile Dusdieker. Chicago Judging Center
- [3] *Cymbidium* Dag 'Dorothy's Musical Notes' CCM-HCC/AOS (*Esmeralda* x *pumilum*) 83-79 pts. Exhibitor: Gary Lensmeyer; photographer: Scott Weber. Chicago Judging Center
- [4] *Phragmipedium* Rouge Bouillon 'Memoria Milton Wittmann' HCC/AOS (*dalessandroi* x *Memoria Dick Clements*) 79 pts. Exhibitor: Cheryl Erins; photographer: Scott Weber. Chicago Judging Center
- [5] *Paphiopedilum* Transdoll 'Twin Sisters' HCC/AOS (*liemianum* x *rothschildianum*) 78 pts. Exhibitor: Terry Partin; photographer: Mike Rollinger. Chicago Judging Center
- [6] *Phalaenopsis* Citrus Candy 'Blue Ridge' AM/AOS (Tying Shin Forever Love x Tying Shin Golden City) 83 pts. Exhibitor: Mike Mims; photographer: James Curtis. Carolinas Judging Center
- [7] *Cattleya* Jinn 'Little Red Riding Hood' AM/AOS (*coccinea* x *milleri*) 80 pts. Exhibitor: Looking Glass Orchids; photographer: James Curtis. Carolinas Judging Center
- [8] *Galeopetalum* Starburst 'George Greene' AM/AOS (*Galeottia fimbriata* x *Zygopetalum* Jumpin Jack) 83 pts. Exhibitor: Gayle Greene-Aguirre; photographer: Joseph Paine. Atlanta Judging Center
- [9] *Cattleya* Memoria Jeanith DeLozier 'Memoria Dorothy Evans' AM/AOS (*walkeriana* x *Dream Cloud*) 83 pts. Exhibitor: Pam Kolb; photographer: James Curtis. Carolinas Judging Center
- [10] *Renanthera vietnamensis* 'Silas' CBR/AOS. Exhibitor: Walter E. Crawford; photographer: Scott Weber. Chicago Judging Center
- [11] *Maxillaria carinulata* 'Orkiddoc' CBR/AOS. Exhibitor: Larry Sexton; photographer: Nile Dusdieker. Chicago Judging Center
- [12] *Paphiopedilum* Sue Golan 'Petite' AM/AOS (Canarsee x Nulight) 80 pts. Exhibitor: Arnold Klehm; photographer: Nile Dusdieker. Chicago Judging Center
- [13] *Paphiopedilum* Blaire Badgley 'Helena' HCC/AOS (Blondie's Joy x White King) 77 pts. Exhibitor: Arnold J. Klehm; photographer: Alison Fortney. Chicago Judging Center
- [14] *Paphiopedilum* Hawaiian Treasure 'Sunprarie' HCC/AOS (Petula's Flame x Hawaiian Illusion) 78 pts. Exhibitor: Bil Nelson; photographer: Scott Weber. Chicago Judging Center
- [15] *Paphiopedilum sukhakulii* 'Hampshire' CCM/AOS 84 pts. Exhibitor: Arnold J. Klehm; photographer: Alison Fortney. Chicago Judging Center
- [16] *Paphiopedilum* Pisgah Raisin 'Biltmore's Amarone' AM/AOS (Raisin Pie x Raisin Expectations) 81 pts. Exhibitor: Marc Burchette; photographer: James Curtis. Carolinas Judging Center









- [1] *Vanda* Merrill Sum Wah 'Bielecki's Fat Lip' AM/AOS (*merrillii* x Yip Sum Wah) 80 pts. Exhibitor: Thad Bielecki; photographer: Brian Monk. Florida-Caribbean Judging Center
- [2] *Rhyncholaeliocattleya* Paradise Rose 'My Valentine' HCC/AOS (*Cattleya* Pink Doll x Toshie Aoki) 78 pts. Exhibitor: Robert Palmer; photographer: Jay Loeffler. Florida North-Central Judging Center
- [3] *Bulbophyllum* *fritillariiflorum* 'Belgian Lace' CCE/AOS 95 pts. Exhibitor: Bill Thoms and Doris Dukes; photographer: Kay Clark. Florida North-Central Judging Center
- [4] *Paphiopedilum* Blaire Badgley 'Helena' HCC/AOS (Blondie's Joy x White King) 77 pts. Exhibitor: Arnold J. Klehm; photographer: Alison Fortney. Chicago Judging Center
- [5] *Paphiopedilum* Emerald Ice 'Jim Krull' AM/AOS (Hsinying Dragon x Hsinying Dress) 82 pts. Exhibitor: Krull-Smith; photographer: Jay Loeffler. Florida North-Central Judging Center
- [6] *Phalaenopsis* *fuscata* 'Lady Stella' AM/AOS 80 pts. Exhibitor: Yife Tien; photographer: Brian Monk. Florida-Caribbean Judging Center
- [7] *Vanda* *lamellata* 'Tom' AM/AOS 84 pts. Exhibitor: Marion Steele; photographer: Jay Loeffler. Florida North-Central Judging Center
- [8] *Cattleya* Minipet 'Carolla Rose' HCC/AOS (Orpetii x *coccinea*) 77 pts. Exhibitor: Jim Ault; photographer: Alison Fortney. Chicago Judging Center
- [9] *Cattlianthe* Melana's Fire 'Lady Stella' AM/AOS (Rojo x *Laelia schultzei*) 85 pts. Exhibitor: Yife Tien; photographer: Brian Monk. Florida-Caribbean Judging Center
- [10] *Cattleya* A Miracle Everyday 'Krull-Smith' AM/AOS (*briegeri* x Circle of Life) 81 pts. Exhibitor: Krull-Smith; photographer: Jay Loeffler. Florida North-Central Judging Center
- [11] *Laelia* *anceps* 'Crystelle' AM/AOS 89 pts. Exhibitor: Krull-Smith; photographer: Jay Loeffler. Florida North-Central Judging Center
- [12] *Paphiopedilum* Fajen's Fair Wench 'Rockbend' HCC/AOS (*fairrieantum* x *wenshanense*) 77 pts. Exhibitor: Fajen's Orchids; photographer: Jay Loeffler. Florida North-Central Judging Center
- [13] *Rhynchorides* Memoria Suranaree 'YourEye' AM/AOS (*Aerides lawrenceae* x *Rhynchostylis coelestis*) 83 pts. Exhibitor: Juraj Kojs; photographer: Brian Monk. Florida-Caribbean Judging Center
- [14] *Vanda* Motes Purple Rain 'Darkness at Noon' HCC/AOS (Blue Tahourdin x *tesellata*) 78 pts. Exhibitor: Motes Orchids, Inc.; photographer Brian Monk. Florida-Caribbean Judging Center
- [15] *Rhyncattleanthe* Lynn Ceton 'Winter Haven Trifecta' HCC/AOS (Soldier of Orange x *Cattleya walkeriana*) 77 pts. Exhibitor: Keith and Dina Emig - Winter Haven Orchid Nursery; photographer: Wes Newton. Florida North-Central Judging Center
- [16] *Arachnostylis* Chorchalood 'Elfe' AM/AOS (*Arachnis hookeriana* x *Rhynchostylis gigantea*) 81 pts. Exhibitor: Robert Palmer; photographer: Jay Loeffler. Florida North-Central Judging Center









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- [1] *Dendrobium spectabile* 'Lilianna Grace' AM/AOS 84 pts. Exhibitor: Dennis Pavlock; photographer: Kay Clark. Florida North-Central Judging Center
- [2] *Paphiopedilum* Fajen's Fair Wench 'Rockbend Too' AM/AOS (*fairrieianum* x *wenshanense*) 82 pts. Exhibitor: Fajen's Orchids; photographer: Kay Clark. Florida North-Central Judging Center
- [3] *Bulbophyllum speciosum* 'Whisper Tio Super' CHM/AOS 86 pts. Exhibitor: Laura and Wes Newton; photographer: Wes Newton. Florida North-Central Judging Center
- [4] *Paphiopedilum tranlienianum* 'Fajen's Orchids' HCC/AOS 77 pts. Exhibitor: Fajen's Orchids; photographer: Wes Newton. Florida North-Central Judging Center
- [5] *Oberonia mucronata* 'Windswept's Foxy Tails' CBR/AOS. Exhibitor: Windswept in Time Orchids; photographer: Lynn O'Shaughnessy. Great Lakes Judging Center
- [6] *Bulbophyllum makoyanum* 'A-doribil' CCM/AOS 87 pts. Exhibitor: Bill Thoms and Doris Dukes; photographer: Kay Clark. Florida North-Central Judging Center
- [7] *Phragmipedium* Acker's Autumn 'Wacousta' HCC/AOS (Autumn Fire x *manzurii*) 75 pts. Exhibitor: Dorothy Barnett; photographer: Lynn O'Shaughnessy. Great Lakes Judging Center
- [8] *Paphiopedilum* Shun-Fa Golden 'Fajen's Orchids' HCC/AOS (*hangianum* x *malipoense*) 77 pts. Exhibitor: Fajen's Orchids; photographer: Wes Newton. Florida North-Central Judging Center
- [9] *Cattleya* Donald Foster 'Garden City' CCM/AOS (Drumbeat x Okarache) 82 pts. Exhibitor: Mei Ling Clemens; photographer: Lynn O'Shaughnessy. Great Lakes Judging Center
- [10] *Bulbophyllum arfakianum* 'Green Then Red' CCE-AM/AOS 92-87 pts. Exhibitor: Marion Steele; photographer: Wes Newton. Florida North-Central Judging Center
- [11] *Peaseara* Chian-Tzy Lovely 'Windswept's Star Cluster' HCC/AOS (*Leomeszia* Mini-Primi x *Oncidium cheirophorum*) 79 pts. Exhibitor: Windswept in Time Orchids; photographer: Lynn O'Shaughnessy. Great Lakes Judging Center
- [12] *Phragmipedium* QF Walter Scheeren 'Kim Stehli' AM/AOS (Memoria Julius Dixler x *boisserianum*) 81 pts. Exhibitor: Bert Smith; photographer: Lynn O'Shaughnessy. Great Lakes Judging Center
- [13] *Paphiopedilum rothschildianum* 'Tiger Tash' AM/AOS 82 pts. Exhibitor: Sandra Dixon; photographer: Lynn O'Shaughnessy. Great Lakes Judging Center
- [14] *Phragmipedium* QF Walter Scheeren 'Barclay's Green Paradise' AM/AOS (Memoria Julius Dixler x *boisserianum*) 81 pts. Exhibitor: Windswept in Time Orchids; photographer: Eileen Findak. Great Lakes Judging Center









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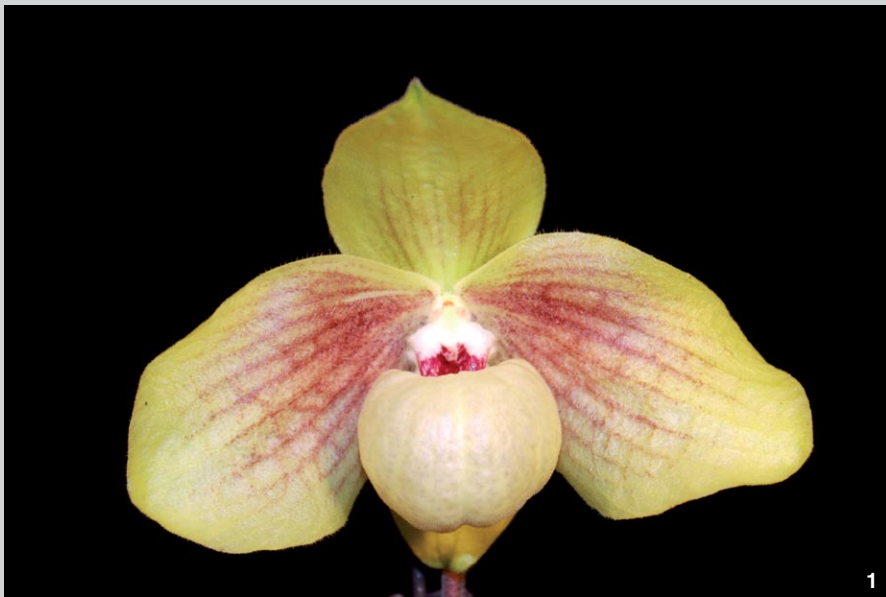
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- [1] *Paphiopedilum liemianum* 'Jeanie's Delight' AM/AOS 83 pts. Exhibitor: Orchid Inn; photographer: Lynn O'Shaughnessy. Great Lakes Judging Center
- [2] *Phragmipedium* Cahaba Glow 'Robin's Blush' AM/AOS (Sunset Glow x *besseae*) 81 pts. Exhibitor: Sandra Dixon; photographer: Lynn O'Shaughnessy. Great Lakes Judging Center
- [3] *Phragmipedium kovachii* 'Ekulo' AM/AOS 83 pts. Exhibitor: David Bird; photographer: Melissa Garner. Mid-America Judging Center
- [4] *Masdevallia* Morning Glory 'Kalapana' HCC/AOS (*chaparensis* x Marguerite) 78 pts. Exhibitor: Kalapana Tropicals; photographer: Ben Oliveros. Hawaii Judging Center
- [5] *Cymbidium* Peppercuss 'Roberts' AM/AOS (Pfeiffer Falls x Piñata) 82 pts. Exhibitor: Roberts Flower Supply; photographer: Lynn O'Shaughnessy. Great Lakes Judging Center
- [6] *Paphiopedilum* Julius 'Hazel' AM/AOS (*lowii* x *rothschildianum*) 81 pts. Exhibitor: Jill Stackley; photographer: Bryon K Rinke. Great Plains Judging Center
- [7] *Masdevallia* Steve Vance 'Kalapana' AM/AOS (Copper Angel x *princeps*) 81 pts. Exhibitor: Kalapana Tropicals; photographer: Ben Oliveros. Hawaii Judging Center
- [8] *Pleurothallopsis inaequalis* 'Bryon Rinke' HCC/AOS 78 pts. Exhibitor: Bryon K. Rinke; photographer: Bryon K Rinke. Great Plains Judging Center
- [9] *Paphiopedilum* Millennium Falcon 'Solo-Style' HCC/AOS (Millennium Dream x Eyecatcher (2011)) 75 pts. Exhibitor: The Orchid Fix Nursery Jurahme Leyva; photographer: Ben Oliveros. Hawaii Judging Center
- [10] *Lycaste macrophylla* var. *alba* 'Lehua Clearly Green' HCC/AOS 79 pts. Exhibitor: Lehua Orchids; photographer: Glen Barfield. Hawaii Judging Center
- [11] *Dendrobium speciosum* var. *curvicaule* 'Max' AM/AOS 83 pts. Exhibitor: Max C. Thompson; photographer: Bryon K Rinke. Great Plains Judging Center
- [12] *Tolunnia* Calypso Queen 'Sundance' CCM/AOS (Golden Glow x *pulchella*) 86 pts. Exhibitor: Max Thompson and Bryon Rinke; photographer: Bryon K Rinke. Great Plains Judging Center
- [13] *Dendrobium* Special Surprise 'Windy Hill' HCC/AOS (Anne's Rainbow Surprise x *speciosum*) 77 pts. Exhibitor: Marilyn and Brian LeDoux; photographer: Melissa Garner. Mid-America Judging Center
- [14] *Trichopilia* *suavis* 'Moana' CCM/AOS 86 pts. Exhibitor: Andrew Okada; photographer: Michael Blietz. Hawaii Judging Center
- [15] *Dendrobium* Silver King 'Luana' AM/AOS (Peter Shen x Silver Wings) 86 pts. Exhibitor: Andrew Okada; photographer: Michael Blietz. Hawaii Judging Center
- [16] *Dendrobium* Kuniko 'Pukalani Profusion' CCE/AOS (*goldschmidtianum* x *victoriae-reginae*) 92 pts. Exhibitor: Aloha Aina Orchids; photographer: Michael Blietz. Hawaii Judging Center









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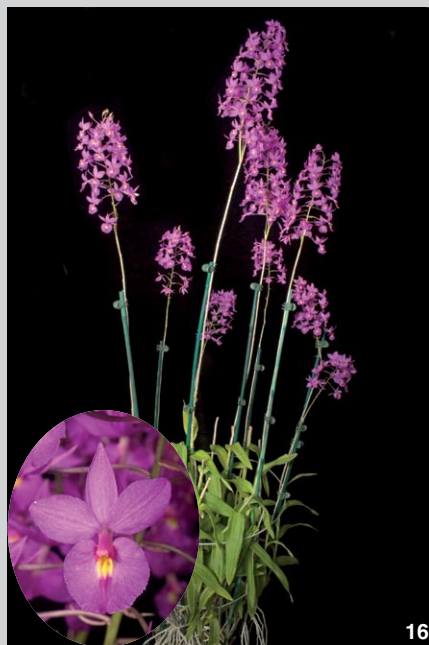
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- [1] *Paphiopedilum* Shun-Fa Golden 'Memoria Vicki Thompson' AM/AOS (*hangianum* x *malipoense*) 81 pts. Exhibitor: Terrence Thompson; photographer: Melissa Garner. Mid-America Judging Center
- [2] *Paphiopedilum jackii* 'Windy Hill' HCC/AOS 78 pts. Exhibitor: Marilyn and Brian LeDoux; photographer: Melissa Garner. Mid-America Judging Center
- [3] *Dendrobium* Roy Tokunaga 'Sachiko' AM/AOS (*atroroseaceum* x *johnsoniae*) 83 pts. Exhibitor: Andrew Okada; photographer: Michael Blietz. Hawaii Judging Center
- [4] *Rhynchostylis* Chorchalood 'Kensington' HCC/AOS (*gigantea* x *retusa*) 79 pts. Exhibitor: Daniel Gillespie; photographer: Julie Rotramel. National Capital Judging Center
- [5] *Cattleya lueddemanniana* 'Canamima's Makie' AM/AOS 80 pts. Exhibitor: Chris Rehmann; photographer: Julie Rotramel. Mid-Atlantic Judging Center
- [6] *Paphiopedilum tranlienanum* 'Jake Scarbo' CCE-AM/AOS 90-85 pts. Exhibitor: David Bird; photographer: Melissa Garner. Mid-America Judging Center
- [7] *Paphiopedilum* Genevieve Booth 'Jardin botanique de Montréal' HCC/AOS (Mount Toro x *rothschildianum*) 76 pts. Exhibitor: Jardin botanique de Montréal; photographer: Thang Dam. Toronto Judging Center
- [8] *Oncidium* Serendipity 'Cardrona' AM/AOS (*cirrhosum* x *praestanoides*) 84 pts. Exhibitor: Stephen Male and Fishing Creek Orchids; photographer: Julie Rotramel. National Capital Judging Center
- [9] *Vanda brunnea* 'Genette' CCE/AOS 92 pts. Exhibitor: Andy Braun; photographer: Julie Rotramel. Mid-Atlantic Judging Center
- [10] *Paphiopedilum* Mary's Little Leopard 'Honey Bear' AM/AOS (Mary Zdilla x Little By Little) 80 pts. Exhibitor: Joel Graham; photographer: Julie Rotramel. National Capital Judging Center
- [11] *Phalaenopsis* Nobby's Little Candy 'Hilltop's Little Sarah' AM/AOS (Be Glad x Mahogany Leopard) 81 pts. Exhibitor: Hilltop Orchids; photographer: Melissa Garner. Mid-America Judging Center
- [12] *Phragmipedium* Eumelia Arias 'February Springtime' AM/AOS (*kovachii* x *schlimii*) 82 pts. Exhibitor: Joan and David Rosenfeld; photographer: Julie Rotramel. Mid-Atlantic Judging Center
- [13] *Cattleya loddigesii* 'Loretta' AM/AOS 83 pts. Exhibitor: Chris Rehmann; photographer: Julie Rotramel. Mid-Atlantic Judging Center
- [14] *Paphiopedilum* Big Time 'JustPat' AM/AOS (Valerie Tonkin x Gege Hughes) 80 pts. Exhibitor: Paul Sheetz; photographer: Julie Rotramel. Mid-Atlantic Judging Center
- [15] *Maxillaria picta* 'Windy Hill's Lemon Bird' AM/AOS 81 pts. Exhibitor: Marilyn and Brian LeDoux; photographer: Melissa Garner. Mid-America Judging Center
- [16] *Bardendrum* Nanboh Pixy 'Cherry Moon' CCM-AM/AOS (*Bardendrum* Terusan x *Barkeria scandens*) 82-82 pts. Exhibitor: Little Brook Orchids; photographer: Julie Rotramel. National Capital Judging Center



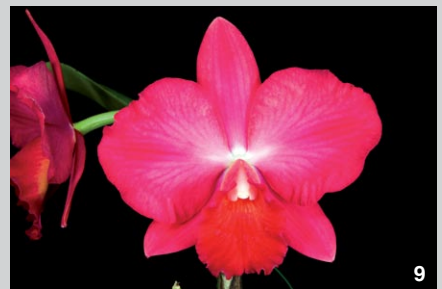
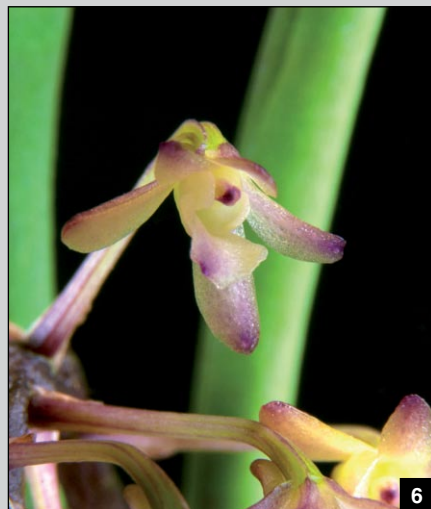






- [1] *Oncidium Serendipity* 'Cardrona' CCM/AOS (*cirrhosum* x *praestanoides*) 85 pts. Exhibitor: Stephen Male and Fishing Creek Orchids; photographer: Julie Rotramel. National Capital Judging Center
- [2] *Dinema polybulbon* 'Andromeda' CCE/AOS 95 pts. Exhibitor: Shawn Wood; photographer: Julie Rotramel. National Capital Judging Center
- [3] *Phragmipedium* Spot On 'Nez Perce Creek' AM/AOS (Lynn Evans-Goldner x Pink Panther) 81 pts. Exhibitor: Woodstream Orchids; photographer: James Winner. National Capital Judging Center
- [4] *Phragmipedium* Fiery Castle 'Glass Slipper' AM/AOS (Elizabeth Castle x Andean Fire) 80 pts. Exhibitor: Woodstream Orchids; photographer: James Winner. National Capital Judging Center
- [5] *Paphiopedilum purpuratum* 'Nez Perce Creek' HCC/AOS 79 pts. Exhibitor: Woodstream Orchids; photographer: James Winner. National Capital Judging Center
- [6] *Cymbidium* Carolyn Smith Bolton 'Pat's Triumph' CCM-AM/AOS (*seidenfadenii* x Cindy Lou) 85-82 pts. Exhibitor: Patricia Freeland; photographer: Cheryl Langseth. Northeast Judging Center
- [7] *Laeliocatarthron* Garland Hanson 'RUsafe' AM/AOS (Silver Toy x *Laelia anceps*) 80 pts. Exhibitor: Joseph J. Francis; photographer: James Winner. National Capital Judging Center
- [8] *Cymbidium* Doris 'Lady Vanessa Darroch' AM/AOS (*insigne* x *tracyanum*) 80 pts. Exhibitor: John Sonnier; British Embassy Washington; photographer: James Winner. National Capital Judging Center
- [9] *Appendicula malindangensis* 'Susan' CBR/AOS. Exhibitor: Chuck and Sue Andersen; photographer: Robert Hesse. Northeast Judging Center
- [10] *Masdevallia robineae* 'Susan' CBR/AOS. Exhibitor: Chuck and Sue Andersen; photographer: Robert Hesse. Northeast Judging Center
- [11] *Cyrtochilum sharoniae* 'Susan' CBR/AOS. Exhibitor: Chuck and Sue Andersen; photographer: Robert Hesse. Northeast Judging Center
- [12] *Laelia anceps* 'Fragrant Pastel' CCM/AOS 83 pts. Exhibitor: Kim Feddersen; photographer: Cheryl Langseth. Northeast Judging Center
- [13] *Pleurothallis ruscaria* 'Susan' CCM/AOS 85 pts. Exhibitor: Chuck and Sue Andersen; photographer: Robert Hesse. Northeast Judging Center
- [14] *Masdevallia caudata* 'Wind Dancer' HCC/AOS 78 pts. Exhibitor: Mary Ann Denver; photographer: Charles Marden Fitch. Northeast Judging Center
- [15] *Paphiopedilum* Hawaiian Treasure 'Nebbiolo' AM/AOS (Petula's Flame x Hawaiian Illusion) 81 pts. Exhibitor: Dave Sorokowsky; photographer: Chaunie Langland. Pacific Central Judging Center
- [16] *Dendrobium* Brimbank You Beauty 'Susan' AM/AOS (Brimbank Pink Rose x Australian Rose-Beauty) 87 pts. Exhibitor: Chuck and Sue Andersen; photographer: Robert Hesse. Northeast Judging Center









- [1] *Phragmipedium Sedenii* 'Anne's Blush' CCE/AOS (*longifolium* x *schlimii*) 90 pts. Exhibitor: Harry Pringle; photographer: Robert Hesse. Northeast Judging Center
- [2] *Paphiopedilum Robinianum* 'Tiny Jungle' AM/AOS (*lowii* x *parishii*) 86 pts. Exhibitor: Chris Mende; photographer: Ken Jacobsen. Pacific Central Judging Center
- [3] *Dracula nosferatu* 'Zoltan' AM/AOS 81 pts. Exhibitor: John Leathers; photographer: Ken Jacobsen. Pacific Central Judging Center
- [4] *Dendrobium tobaense* 'Golden Gate' AM/AOS 81 pts. Exhibitor: Golden Gate Orchids; photographer: Ken Jacobsen. Pacific Central Judging Center
- [5] *Bulbophyllum violaceolabellum* 'AGE' HCC/AOS 76 pts. Exhibitor: Andy Wright; photographer: Mike Pearson. Pacific Northwest Judging Center
- [6] *Penkimia nagalandensis* 'Monique' CBR/AOS. Exhibitor: Tom Valente; photographer: Ross Leach. Pacific Northwest Judging Center
- [7] *Dendrobium dichaeoides* 'Conservatory Pink Rain' CCM/AOS 85 pts. Exhibitor: Conservatory of Flowers; photographer: Ken Jacobsen. Pacific Central Judging Center
- [8] *Masdevallia patula* 'Cosmos' HCC/AOS 76 pts. Exhibitor: Terry Thompson; photographer: Mike Pearson. Pacific Northwest Judging Center
- [9] *Rhyncholaeliocattleya* 'Arnie's Life 'Arnie' AM/AOS (*Paradise Rose* x *Cattleya Circle of Life*) 80 pts. Exhibitor: Arnold Gum; photographer: Arnold Gum. Pacific South Judging Center
- [10] *Paphiopedilum* Patricia Burke Kelly 'Huntington's Warding Spots' HCC/AOS (*wardii* x *Memoria Samuel Weltz*) 79 pts. Exhibitor: Huntington Botanical Gardens; photographer: Arthur Pinkers. Pacific South Judging Center
- [11] *Cattleya coccinea* 'Aimee' CCM/AOS 80 pts. Exhibitor: Skip Burke; photographer: Ross Leach. Pacific Northwest Judging Center
- [12] *Rhyncattleanthe* 'Ruben's Magic 'Hortensia' AM/AOS (*Cattleya Tropical Sunset* x *Laughing Boy*) 84 pts. Exhibitor: Ruben Colmenares; photographer: Ken Jacobsen. Pacific Central Judging Center
- [13] *Oncidium Ardentissimum* 'Golden Gate' AM/AOS (*alexandrae* x *nobile*) 83 pts. Exhibitor: Golden Gate Orchids; photographer: Ken Jacobsen. Pacific Central Judging Center
- [14] *Dracula* Maltese Falcon 'Bogey' FCC/AOS (*Raven* x *roezlii*) 95 pts. Exhibitor: John Leathers; photographer: Ken Jacobsen. Pacific Central Judging Center
- [15] *Angraecum sesquipedale* 'Sunset Valley Orchids' AM/AOS 83 pts. Exhibitor: Fred Clarke; photographer: Arthur Pinkers. Pacific South Judging Center
- [16] *Laelia anceps* 'Fran Weaver' CCM/AOS 88 pts. Exhibitor: Bill Weaver; photographer: Ken Jacobsen. Pacific Central Judging Center









11



12



13



14



15



16

- [1] *Dendrochilum kingii* var. *kingii* 'Windflower' CCM/AOS 85 pts. Exhibitor: Betty Kelepecz; photographer: Arnold Gum. Pacific South Judging Center
- [2] *Phalaenopsis* Yaphon Perfume 'Red' HCC/AOS (Tying Shin Cupid x Tzu Chiang Balm) 76 pts. Exhibitor: Donna Ballard; photographer: Arthur Pinkers. Pacific South Judging Center
- [3] *Paphiopedilum* Coral Rain 'Tustin' HCC/AOS (Coral Sea x Bloody Rain) 75 pts. Exhibitor: Harold Koopowitz- Paph Factory; photographer: Arthur Pinkers. Pacific South Judging Center
- [4] *Cattleya amethystoglossa* 'Rincon Siren' HCC/AOS 77 pts. Exhibitor: Frank Methmann; photographer: Larry Vierheilg. Pacific South Judging Center
- [5] *Dendrobium* Star King 'Irvine' HCC/AOS (Starsheen x *kingianum*) 79 pts. Exhibitor: Cal-Orchid Inc.; photographer Arthur Pinkers. Pacific South Judging Center
- [6] *Dendrobium rhodostictum* 'Ori Gem' HCC/AOS 79 pts. Exhibitor: Duy Nguyen; photographer: Arthur Pinkers. Pacific South Judging Center
- [7] *Cattlianthe* Denis Olivas 'Best' AM/AOS (*Cattleya* Penny Kuroda (Penny Kuroda Group) x Trick or Treat) 81 pts. Exhibitor: Fred Clarke; photographer: Arthur Pinkers. Pacific South Judging Center
- [8] *Rhyncholaeliocattleya* Mark's Valentine 'Holly' AM/AOS (*Cattleya* Circle of Life x Little Toshie) 83 pts. Exhibitor: Holly Miller; photographer: Charlie Riner. Shreveport Judging Center
- [9] *Vandachostylis* Pinky 'Diamond Giant' AM/AOS (*Vanda falcata* x *Rhynchostylis gigantea*) 84 pts. Exhibitor: Peter T. Lin; photographer: Arthur Pinkers. Pacific South Judging Center
- [10] *Vandachostylis* Pinky 'Purple Diamond' CCM-AM/AOS (*Vanda falcata* x *Rhynchostylis gigantea*) 87-83 pts. Exhibitor: Peter T. Lin; photographer: Arthur Pinkers. Pacific South Judging Center
- [11] *Paphiopedilum lowii* 'Tustin' HCC/AOS 76 pts. Exhibitor: Harold Koopowitz-Paph Factory; photographer: Arthur Pinkers. Pacific South Judging Center
- [12] *Cymbidium* Majestic 'Sunset' HCC/AOS (Via Mar-Vista x Pure Love) 79 pts. Exhibitor: Casa de las Orquideas; photographer: Arthur Pinkers. Pacific South Judging Center
- [13] *Dendrobium* SOOS Celebrates 50 'Synea' AM/AOS (*aberrans* x Little Atró) 80 pts. Exhibitor: Synea Tan; photographer: Jay Norris. Toronto Judging Center
- [14] *Paphiopedilum* Mount Toro 'Netherby' CCM/AOS (*stonei* x *philippinense*) 83 pts. Exhibitor: Rick Rempel; photographer: Ed Cott. Toronto Judging Center
- [15] *Lepanthes nicolasii* 'Elven Swords' CHM/AOS 84 pts. Exhibitor: Jay Norris and Max Wilson; photographer: Jay Norris. Toronto Judging Center
- [16] *Zelenmia* Midas 'Synea' HCC/AOS (*Tolumnia* Red Belt x *Zelenkoa onusta*) 79 pts. Exhibitor: Synea Tan; photographer: Jay Norris. Toronto Judging Ctr.

**APRIL**

**5-7—Asociacion Orquideologica de Cartago “Exposicion Nacional de Orquideas Cartago 2019,”** Centro Comercial Paseo Metr poli, La Lima, Entrada a Cartago, Cartago, Costa Rica; Contact: Carlos Granados, (506) 8379-1513; cagranados48@gmail.com

**5-7—Orchid Society of Alberta “Orchid Fair 2019,”** Enjoy Centre, 101 Riel Drive, St. Albert, AB, Canada; Contact: Darrell Albert, 780-903-2299; darrell@alberta-it.com

**5-7—Southeastern Pennsylvania Orchid Society International Orchid Show & Sale,** Greater Philadelphia EXPO Center at Oaks, 100 Station Ave., Oaks, PA; Contact: Robert Sprague, 484-919-2922; bobsatcyndal@aol.com

**6-7—Cherry City Orchid Society Show “Orchid Magic,”** Bonaventure of Salem, 3411 Boone Road SE, Salem, OR; Contact: Janeil Payne, 503-931-3441; janeilorchidjudge@gmail.com

**6-7—Desert Valley Orchid Society Show,** Berridge Nurseries, 4647 E. Camelback Road, Phoenix, AZ; Contact: Cindy Jepsen/Gloria Zemla, 602-743-0146; cindyjepsen@cox.net

**6-7—Houston Orchid Society Show & Sale,** Memorial City Mall, 303 Memorial City Way, Houston, TX; Contact: Jay Balchan, 713-898-1265; balchan.jay@gmail.com

**6-7—Les Orchidophiles de Quebec “Orchidofolie 2019,”** Pavillon Envirotron, 2480 Boulevard Hochelaga, Quebec, Quebec, Canada; Contact: Michel Tremblay, 450-966-6339; mdppa.tremblay@sympatico.ca

**6-7—Utah Orchid Society Bench Show,** Red Butte Gardens, 300 Wakara Way, Salt Lake City, UT; Contact: Shawn Quealy, 801-831-7359; shquealy@comcast.net

**6-7—Western North Carolina Orchid Society “An Orchid Expedition,”** North Carolina Arboretum, 100 Frederick Law Olmsted Way, Asheville, NC; Contact: Mike Mims, 828-329-2126; michaelmims@gmail.com

**12-13—Central Louisiana Orchid Society Spring Show,** Kees Park Community Center, 2450 Highway 28 E, Pineville, LA; Contact: Linda Roberts, 318-352-2683; lmrjnk@yahoo.com

**12-14—Pan American Orchid Society “Orchid Festival 2019,”** R.F. Orchids, Inc., 28100 SW 182 Ave., Homestead, FL; Contact: Carlos Ochoa, 786-344-3318; emailochoa@yahoo.com

**13-14—Acadian Orchid Society Show & Sale,** Ira Nelson Horticulture Center, 2206 Johnson St., Lafayette, LA; Contact: Melissa Fournet, 337-280-7246; melissa@

redlerilles.com

**13-14—Central Indiana Orchid Society Show,** Garfield Park Conservatory, 2505 Conservatory Drive, Indianapolis, IN; Contact: Foster Flint, 317-601-2649; flintlowell@hotmail.com

**13-14—Gold Coast Cymbidium Growers Show & Sale,** Redwood City Community Activities Building, 1400 Roosevelt Ave., Redwood City, CA; Contact: Bill Weaver, 408-245-7179; theplantgeek@gmail.com

**13-14—Sacramento Orchid Society Show “Dreaming of Orchids,”** Scottish Rite Temple, 6151 H St., Sacramento, CA; Contact: Carolyn M. Jones, 530-219-0043; sacramentoorchidshowchair@gmail.com

**13-14—Tallahassee Orchid Society “53rd Show & Sale,”** Doyle Conner Agriculture Bldg., 3125 Doyle Conner Blvd., Tallahassee, FL; Contact: Michael Wright, 904-335-7192; wrig0567@comcast.net

**13-14—Toronto Artistic Orchid Association Orchid Show 2019,** Center for Immigrant & Community Services, 2330 Midland Ave., Toronto, Ontario, Canada; Contact: Nancy Leung, 905-597-6665; nancyleung.taoa@gmail.com

**13-14—Treasure Valley Orchid Society Show & Sale,** Hilton Garden Inn Boise, 7699 Spectrum St., Boise, ID; Contact: Ruth Mayer, 208-860-5254; ruthmayer@cableone.net

**18-20—Maui Orchid Society Easter Show,** Maui Mall, 70 East Kaahumanu Ave., Kahului, Maui, HI; Contact: Bert Akitake, 808-250-1585; jakitake@hotmail.com

**20-21—Flamingo Gardens Orchid Society Show,** Flamingo Gardens, 3750 S Flamingo Rd., Davie, FL; Contact: Jan Amador, 954-347-2738; jbamador@bellsouth.net

**20-21—Tulsa Orchid Society Show “Orchids Wild and Wonderful,”** Tulsa Garden Center, 2435 S. Peoria Ave., Tulsa, OK; Contact: Soundra Schacher, 918-299-6466; schacher1@cox.net

**26-28—Sacajawea Orchid Society Show,** Gallatin Valley Mall, 2825 W. Main St., Unit 3-J, Bozeman, MT; Contact: Charlie Spinelli, 406-282-7621; companion406@gmail.com

**27-28—Oregon Orchid Society Spring Show,** Aquinas Hall, 1333 NE Martin Luther King Jr Blvd., Portland, OR; Contact: Greg Stanley, 626-818-2806; greges1@aol.com

**27-28—Ottawa Orchid Society Show “ORCHIDOPHILIA,”** RA Recreational Centre, 2451 Riverside Drive, Ottawa, ON, Canada; Contact: Marcel Carriere, 613-673-1807; chipwendover@videotron.ca

**27-28—Vero Beach Orchid Society Annual Show “Aloha Orchids,”** Riverside Park,

3001 Riverside Park Dr., Vero Beach, FL; Contact: Carol Marvin, 772-778-7600; carolmarv@aol.com

**27-28—West Shore Orchid Society Spring Show,** Strongsville Recreation Center, 18100 Royalton Road, Strongsville, OH; Contact: Chester Kieliszek, 330-467-3731; kieliszekc@aol.com

**MAY**

**3-5—Memphis Orchid Society Show & Sale,** Memphis Botanic Garden, 750 Cherry Rd., Memphis, TN; Contact: David Potts, 901-301-5950; david@medicalcenterbookstore.com

**3-5—Platinum Coast Orchid Society “Orchid Safari,”** Kiwanis Island Park Gymnasium, 951 Kiwanis Island Park Road, Merritt Island, FL; Contact: Laura Blackmon, 321-308-4256; leblackmon@bledsoe.net

**4-5—Oklahoma Orchid Society Show “Orchid Fiesta,”** Will Rogers Garden Exhibition Center, 3400 NW 36th Street, Oklahoma City, OK; Contact: Jana Butcher, 405-209-7657; w.butcher@cox.net

**11-12—Orchid Society of California “Mother’s Day Weekend Orchid Show & Sale,”** Lakeside Park Garden Center Nursery, 666 Bellevue Ave., Oakland, CA; Contact: Helga Mahlmann, 510-635-2940; helgam@batnet.com

**11-12—Volusia County Orchid Society Show “Rocking with Orchids,”** Volusia County Fairgrounds, Hester Bldg., 3100 East New York Ave., DeLand, FL; Contact: Denise Christensen & Mike Orpi, 386-873-4300; denise@denisechristensen.com

**17-19—Redland International Orchid Festival,** Redland Fruit & Spice Park, 24801 SW 187th Ave., Homestead, FL; Contact: Bill Peters, 305-242-1333; whimsyOrchids@gmail.com

**31—June 2—New Orleans Orchid Society’s Show & Sale,** Lakeside Mall, 3301 Veterans Memorial Blvd., Suite 209, Metairie, LA; Contact: Randy Johnson, 225-205-8181; randy.johnsonian2000@gmail.com

**JUNE**

**1-2—Foothills Orchid Society “Orchids for Everyone,”** Triwood Community Center, 2244 Chicoutimi Drive NW, Calgary, Alberta, Canada; Contact: Marguerite Salsberry, 403-973-2687; msalsberry@telus.net

**28-30—Hilo Orchid Society “Orchid Oddysey,”** Edith Kanaka’ole Stadium, 350 Kalanikoa St., Hilo, Hawaii; Contact: Karl Mendonca, 970-989-8064; karlsandi@comcast.net

Events preceded by an asterisk (\*) in this listing will not be judged by the AOS.



# CALL FOR CONSERVATION GRANTS

IN ITS CONCERN for the protection of wild orchid species around the world, the AOS Conservation Committee announces that it is taking applications for conservation-project grants for 2019. Please note that as of last year, the AOS has decided to fund conservation projects separately from research projects, allowing for some different types of initiatives to be considered. Although conservation research will still fall under the purview of the Research Committee, conservation grants are intended to encourage a more practical, hands-on, grassroots approach. We are seeking a broad range of applicants engaging in projects that protect orchids and their natural habitats, including, but not limited to:

- Studies that enhance our knowledge of crucial ecological information
- Conservation assessments of specific orchids or regions
- Seed propagation of rare or threatened species
- Habitat restoration or reintroduction efforts
- Raising public awareness regarding orchid conservation and encouraging public participation
- Providing education or outreach to present and future members of the conservation community

The project ideas listed above are simply that. The committee is receptive to any additional ideas or concepts that can potentially protect orchid species. Indeed, any and all conservation-oriented projects, anywhere in the world, will be considered. An institutional affiliation is helpful, although it is not required. However, an accurate, estimated itemized budget is required. Although funds are limited, past grants have averaged about \$3,000.00. We REQUIRE annual project reports, and that an article featuring your project be submitted for publication in *Orchids* magazine within six months of the project's completion. Because of the nature of conservation projects, ongoing multiyear support is a possibility.

Grants are awarded for one or two year duration, with funds distributed annually. For projects requiring more than two years, applicants will need to reapply for additional funding. At the discretion of the AOS Conservation Committee, project progress reports will likely be requested. Although we limit most grants to two years, longer-term projects will be considered on a case-by-case basis.

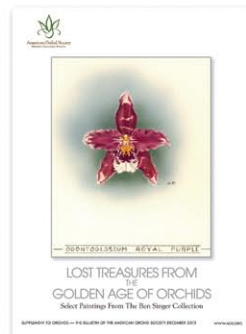
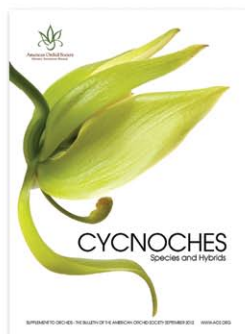
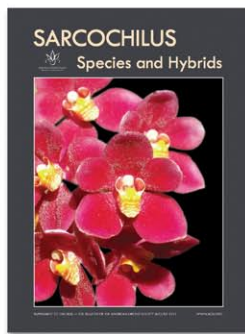
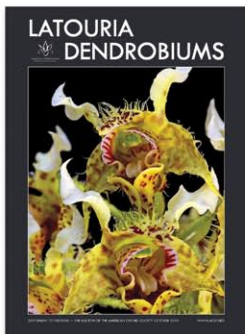
The application deadline for FY2018/2019 is April 15, 2019. Proposals for FY2019/2020 funding are due no later than December 31, 2019. Review of early submissions will begin July 1, 2019. Please see the AOS website for application and requirements, or contact the AOS Conservation Committee at [conservation\\_committee@aos.org](mailto:conservation_committee@aos.org) for an application.

— Thomas Miranda, Chair, AOS Conservation Committee ([conservation\\_committee@aos.org](mailto:conservation_committee@aos.org)).



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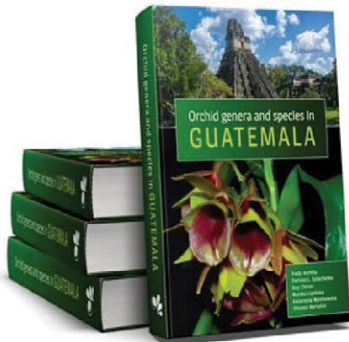
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Archila, F., D. L. Szlachetko, G. Chiron, M. Lipinska, K. Mystkowska and V. Bertolini: *Orchid genera and species in Guatemala*. 2019. approx. 300 color photographs. 724 p. gr8vo. Hardcover. – Bilingual English and Spanish. (Koeltz ID 107905)  
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## Submission of articles for *ORCHIDS* magazine

The AOS welcomes the submission of manuscripts for publication in *Orchids* magazine from members and non-members alike. Articles should be about orchids or related topics and cultural articles are always especially welcome. These can run the gamut from major feature-length articles on such topics as growing under lights, windowsills and thorough discussions of a species, genus or habitat to shorter, focused articles on a single species or hybrid to run under the Collector's Item banner. The AOS follows the World Checklist of Selected Plant Families with respect to species nomenclature and the Royal Horticultural Society Orchid Hybrid Register for questions of hybrid nomenclature.

Articles as well as inquiries regarding suitability of proposed articles should be sent to [jean.ikeson@gmail.com](mailto:jean.ikeson@gmail.com) or the editor at [rmchatton@aos.org](mailto:rmchatton@aos.org).

# Monthly Orchid Judging

By Laura Newton



BRIAN KELLY

MOST OF US think of AOS judging as something that happens at an orchid show where you have beautiful displays chockfull of wonderful orchids! But did you know that each of the 35 AOS judging centers, including those in Hawaii, Puerto Rico and Canada, also has monthly judging?

Orchid shows are exciting even for the judges. There is so much to see and sometimes things get overlooked due to the sheer volume of plants that are put into displays. Shows can have anywhere from a couple of hundred plants to a thousand depending on the venue.

At a monthly AOS judging, which all judging centers have, things are much more relaxed and every plant brought in gets looked at, and in the case of my judging center and many others, every plant brought in gets evaluated for AOS awards (what we judges call “screening”). So instead of your plant being tucked into a society display, where it may or may not even be noticed, it will have its rightful

place on the judging table.

I would encourage you to clean the plants up a bit, remove any weeds that might have worked themselves into the medium, stake the inflorescences so they show the flowers off nicely, remove any old leaves or inflorescences, and clean off the leaves (milk, lemon juice or even ginger ale work well for this). A well groomed plant will earn extra points especially if being considered for a cultural award.

Possibly the best part of attending a monthly judging is the ability to sit at the judging table and observe how it all works! You can learn so much from observing: How do the flowers measure up to prior awards? What characteristics make an awardable flower? And what do judges consider when looking at a plant? You can even pick up growing and cultural tips.

What is it that makes a certain flower awardable? There is so much that goes into the answer of that question. Is the flower flat enough, are the segments wide

enough, is the color strong and vibrant, are the markings distinct, what about the bilateral symmetry, do the flowers present well on the inflorescence, are they arranged pleasingly, is the plant vigorous, does it have enough flowers, are all of the flowers similar or exactly the same, do the flowers exemplify the best qualities of each parent, are they better than prior awards or nicer than the parentage, what about the substance (what you feel...are they firm?) and texture (what you see...is it crystalline or satiny or waxy?), does the flower stop you dead in your tracks when you first see it? These are all thoughts and questions that judges ask themselves when evaluating plants. You can be right there listening and learning. What better way to increase your knowledge about orchids than to hear what the experts have to say! While visitors are asked not to engage in conversation during the judges’ deliberation, once the judges have made a decision to score or not, you can certainly ask questions. Since only a small



percentage of orchids brought in to shows or monthly judging are awarded, your chances are much greater at a monthly judging.

Many centers also host study group sessions either before or after monthly judging. This is an even better chance to learn. The talks are often in greater depth than an orchid society talk and the discussion can be exciting.

My first experience at monthly judging was interesting to say the least. At a society meeting a few months before, one of the members was detailing the bloom table and made the comment that we should consider bringing in plants to monthly judging. What's that I just heard? You can win awards on your flowers? Who knew?! Well obviously not me, but I am a rather competitive person, so now I just had to find something to drag in (and not embarrass myself). I thought I had the perfect plant to take in; there were only two problems: said plant, *Dendrobium pachyphyllum*, has flowers that only last one day and, of course, they refused to open until the very next day, after judging. Darn. Then, surprisingly enough, the next month, it was flush with buds the day before judging. With fingers, toes and even eyes crossed, I rushed home from work

the day of judging and, lo and behold, the flowers were all open. Now the rush was on...where do I go and what do I need to bring? In a panic, I rushed to the AOS website and located the information for the monthly judging (<http://www.aos.org/orchid-awards-judging/aos-judging-centers.aspx>), nervously called the judging chair, plugged the address into my navigation system, promptly called my husband and coerced him into driving me (Lord knows I was too nervous to drive), and cleaned up the leaves while waiting for hubby to get home. Off we dashed about an hour away, thinking all the while "I must be crazy to be doing this!" Once there I entered my plant (the only real requirement is that you must have the species and genus/hybrid name), then I was asked if I would like to sit in on judging..."I sure would!" I was in awe of all the judges had to see and say.

After a little while a judge from another table came over and congratulated me on earning an award and asked what clonal name I would like to give the plant.

Now as those of you who have already earned your first award can attest, there is nothing quite like that very first one! I was over the moon and quite happy to name this little ball of a plant that was

full of small, white, fragrant flowers after my first-born grandson, Luca! That event set me on a path that I could never have imagined (my husband likes to call this the "Hoover Effect," like the vacuum...that moment when they suck you in!).

I was asked that night if I would consider joining the judging program. "Who, me?" Little did I know that one question would lead me on this crazy, yet fun and exciting journey to become an orchid judge. So now it is my turn to ask you: "Have you ever considered becoming an orchid judge?" If you have, the best place to start is at a monthly judging. I have found it to be a more relaxed affair, where you have the time to talk freely with all the judges, who can lead you through the process. I can guarantee you this, you will never be bored in this endeavor and you will learn more about orchids than you ever thought possible!

— Since receiving this award, *Laura Newton joined the AOS judging program and is now an accredited judge in the Florida North-Central judging center. She is the center's training coordinator and is now the AOS Awards Registrar (email: [laura@aos.org](mailto:laura@aos.org)).*



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