

# **An Orchid Handbook**

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## Background Information

Orchids get their name from the root word 'orchis' which means testicles, in reference to the roots of some wild species especially of the genus *Orchis*, where the paired tubercles give the appearance of the male sex organs.

Of all the families of plants orchids are the largest. There are an estimated 750 to 1,000 genera and more than 25,000 species of orchids known today, with the number growing each year! The largest number of species is found in the *Dendrobium* (1,500 spp), *Bulbophyllum* (1,500 spp), and *Pleurothallis* (1,000 spp) genera. They are found on every continent in the world with the largest variety found in Asia. There are even species which use hot springs in Greenland to grow. Orchids can be epiphytic (growing high in the trees), terrestrial (growing in the ground), lithophytes (grow on rocks), and a few are saprophytic (living off decaying vegetation).

The family is prized for its beautiful and diverse flowers. The only plant with an economic value to the common man is vanilla, which is a commonly enjoyed flavoring. The hybridizing of these flowers has become a major economic force worldwide for cut flowers and cultivation of plants by hobbyists. It is estimated \$90 billion each year is pumped into the world's economy as a direct result of these fascinating flowers. In some countries *Salep* used in Turkish Delight is gathered from *Dactylorhiza*, *Eulophia*, *Ophrys*, and *Orchis* species. Flavorings are also derived from species of *Angraecum*, and *Leptotes*. *Dendrobium* species are used in Australia as aboriginal body paint and *Geodorum* provides a strong gum for musical instruments.

A plant consists of roots, shoots, and leaves in two growth patterns. Monopodial plants (single stem) grow in one direction, upright. Examples of monopodial growth are found in the genera *Phalaenopsis*, *Vanda*, and *Aerangis*. Sympodial plants grow mostly horizontally in several directions, with pseudobulbs connected by a main axis. Examples of these are *Dendrobium*, *Oncidium*, *Encyclia*, *Cattleya*, and *Cymbidium*.

Leaves of orchids are arranged either alternately or are basal, rarely are they opposite or whorled. Sometimes the leaves can be reduced to scales, but are generally simple and entire, frequently fleshy and attached to an enlarged or swollen stem commonly sheathing at the base.

The flowers of the orchid are strongly irregular and rarely unisexual (*Cycnoches*). As with the lily, the typical flower has 5 circles, each with 3 parts. The outermost circle has 3 sepals (The upper sepal called a 'flag', as in *Irises*). The inner circle has 2 'regular' petals and a 3<sup>rd</sup> specialized petal (the lip or labellum), commonly with a nectary appendage (sac or spur). The stamen circle follows. The stamen circle is reduced with only one or two stamens. The stigma and style fuse together to form a special organ, the column. The anthers on the stamen open by longitudinal slits. The pollen is usually caked together in one to eight large waxy lumps called pollinia, during pollination the substance is transferred as a whole. The pollinia are usually hidden behind a waxy cap-like sterile lobe of the stigma called the rostellum. Last is the ovary circle, which is inferior (the stamens and perianth are connected at the top of the ovary). The pistil is formed of three united carpels; locules are either one or three in number.

The ovules are numerous and borne on axils (if 3 locules) or parietal (if one locule) placentas.

There are two distinguishable flower types, single and double stamened flowers. The double-stamen flowers (Diandrous) have two productive stamens. The only diandrous flowered orchids are *Cypripedioideae* from the genus *Paphiopedilum*. The single-stamen flowers (Monandrous) have one productive stamen.

There are four main styles of inflorescences: single flower, raceme, cyme, and panicle.

The seeds form in capsules, generally developing in a month's time. One seed weighs 1/3,500,000 of an ounce or 1/1,000,000 of a gram. The seed capsule bursts along 3 or 6 seams releasing the seeds. Each seed lacks endosperm (no food storage) and depends on a symbiotic relationship with a fungus to develop and grow. The fungi penetrate the root system and take over the feeding of the young shoot.

Orchids have no known fossil record, making classification in the past challenging.

## Highlights in Orchid History

- **1000–600 BC** Earliest references to orchids came from China
  - ‘Lan’ a word that also meant ‘superior man,’ ‘elegant woman,’ as well as ‘strong,’ ‘virile,’ & ‘beautiful’
- **250–233 BC** Emperor Shi-Kotei, on the advise of his physician, placed an orchid (believed to be *Cymbidium ensifolium*) in the quarters of Empress Yohki-Hi after some years of a childless marriage
  - The plant developed a spike of 13 flowers
  - The Empress conceived the first of 13 sons
- **3 AD** Ki Han, Chinese Minister of State described several orchid species
  - *Cymbidium ensifolium* & *Dendrobium moniliforme*
- **40 AD** Dioscorides, Greek Physician, commented on the use of orchids to determine the sex of offspring
  - 1<sup>st</sup> written evidence of orchids outside the orient
- **1233** The first book on orchids, “Chin Chang Lan Pu” by Wang Keui-Lsueh described 37 orchid species
  - Gave full cultural details
  - Stated the orchid is a symbol of the perfect personality and quality of a superb person
- **1368/1644** Ming Dynasty gave many references for the use orchids as herbs
  - *Vanilla*–100 species used as flavoring
- **1427–1550** Authors throughout Europe commented on the use of orchids in herbology
- **1552** The first American book on medicinal plants “Badiano Codex” by Martin de la Cruz, Aztec physician, referred to *Vanilla planifolia* as a useful plant in treating hysteria, fevers, impotence, rheumatism, and to increase the energy of the muscular systems
- **1700–1799** Books and treatises on culture and descriptions of orchids began to appear from China and throughout Europe

- **1753** Carolus Linnaeus developed the binomial nomenclature system
- **1802** Seeds: R. S. Salisbury described the successful germination and growth of seeds 50 years before other reported successes
- **1800–1850** Descriptions of orchid genera and species continued and collections ensued to become *en vogue*
  - Hybrids began to make an appearance as growers became adventuresome
  - **1830** Hot water stoves were introduced for greenhouse culture
- **1851** RHS published articles which became the manual for orchid growing
  - *Orchids for the Millions*
- **1854–1899** 1,005 orchid hybrids were produced
  - New genera and species described in droves
- **1896** Kew listed 1,800 spp. in 200 genera in cultivation there
- **1902** The first *Cymbidium* hybrids of the 20<sup>th</sup> century appeared and rapidly increased over the next 20 years
- **1900–1925** Hybridization increased including the beginning of intergeneric hybrids
- **1909** Noel Bernard attempted to isolate the fungi and compare germination of infected and non-infected seedlings
- **2002** A new species of *Phragmipedium* is discovered in Peru with exceptionally large flowers and creates a stir

# Family Orchidaceae—Orchid names and Classification

All species on the earth have two Latin names. This is the binomial system of nomenclature instituted by the Swedish naturalist-physician Carl Linnaeus. The first name listed, always capitalized and italicized, is the genus (e.g. *Cattleya*). A genus is a group of closely related species. The second name, also italicized, is the specific epithet, or the species name (e.g. *forbesii*). The species name is not capitalized as a rule.

The genus or species name may commemorate a person, describe some aspect of the plant, or refer to the place of its origin. For example, *Cattleya harrisoniana* honors Harrison of Aighburgh-Liverpool who introduced the species from Brazil. *Cattleya amethystoglossa* was named for its amethyst-colored labellum. *Paphiopedilum philippinense* is native to the Philippines.

Through the centuries, botanists have tried to express relationships among orchids and other plants by ranking them in hierarchies according to similarities and differences in flower structure and/or vegetative features. No fossil records to date have been found for orchids so the evolution of this group is speculation and theory based on the trends in flowering plants. As new technology (such as DNA analysis) becomes available the systematists are reassessing the relationships of orchids, and other plants groups, on every level.

Since the names of plants reflect those relationships, the names may change as well but only in accordance with rules established by the International Code of botanical Nomenclature. Among other rules and recommendations, this Code specifies the various levels of the hierarchy of classification.

Closely related genera are grouped into subtribes, names that end in -inae. Following the *Cattleya forbesii* example, *Cattleya* is in subtribe Laeliinae along with its relatives such as *Laelia* and *Encyclia*. Related subtribes are grouped into larger taxonomic units called tribes; names of tribes end in eae Subtribe Laeliinae is in tribe Epidendreae. Finally, related tribes are grouped into a subfamily, the names of which always end in -oideae. Tribe Epidendreae is in subfamily Epidendroideae. According to Dressler, whose 1981 classification is followed here, there are six subfamilies in the orchid family Apostasioideae, Cypripedioideae, Spiranthoideae Orchidoideae, Epidendroideae, and Vandoideae. Since that 1981 classification was published, Dressler ~ 1986 1990a, 1990b) has amended the framework more than once at many levels, with many more to come in all likelihood. Since most orchid growers are familiar with the 1981 classification it was used here. The classification is complete from Subfamily to Alliance, examples of the more commonly seen and cultivated genera were listed to keep things somewhat simple.

The general framework for the classification of a family is as follows:

Family

Subfamily

Tribe

Subtribe

Alliance

Genera

Species

Family Orchidaceae

Subfamily Apostasioideae (2 genera; 16 species)

Genera: Apostsasia, Neuwiedia

Subfamily Cyripedioideae (4–5 genera; 115 species)

Genera: Cyripedium, Pahiopedilum,

Phragmipedium, Selenipedium

Subfamily Spiranthoideae (95 genera; 550 species—Asia, Africa & Australia)

Tribe Erythrodeae

Subtribe Tropidiinae

Genera: Corymborkis, Tropidia

Subtribe Goodyerinae

Alliance Goodyera

Genera: Goodyera, Ludisia

Alliance Anoectochilus

Genera: Anoectochilus, Zeuxine

Tribe Cranichideae (North & South America)

Subtribe Spiranthinae

Genera: Spiranthes

Subtribe Pachyplectroninae

Genera: Pachyplectron

Subtribe Manniellinae

Genera: Manniella

Subtribe Cranichidinae

Alliance Prescottia

Genera: Altensteinia, Prescottia

Alliance Ponthieva

Genera: Baskervilla, Cranichis, Ponthieva

Subtribe Cryptostylidinae

Genera: Cryptostylis

Subfamily Orchidoideae (2,800 species—Mostly terrestrial in Europe, Africa, &

Australia)

Tribe Neottieae (100 species)

Subtribe Limodorinae

Genera: Epipactis

Subtribe Listerinae

Genera: Listeria

Tribe Diurideae (550 species)

Subtribe Chloraeinae

Genera: Bipinnula, Chloraea

Subtribe Caladeniinae

Alliance Caladenia

Genera: Calandia

Alliance Caleanae

Genera: Drakaea

Subtribe Pterostylidinae

Genera: Pterostylis

Subtribe Acianthinae

Genera: Corybas

Subtribe Diuridinae

Genera: Thelymitra

Subtribe Prasophyllinae

Genera: Microtis, Prasophyllum

Tribe Orchideae (1,700 species)

Subtribe Orchidinae

Alliance Galeris

Genera: Amerorchis, Galearis



Alliance Platanthera

Genera: Platanthera

Alliance Orchis

Genera: Ophrys, Orchis

Alliance Holothrix

Genera: Bartholina, Holothrix

Subtribe Habenariinae

Alliance Herminium

Genera: Gennaria, Herminium

Alliance Habenaria

Genera: Nabenaria

Subtribe Huttonaeinae

Genera: Huttonaea

Tribe Disae

Subtribe Disinae

Genera: Disa

Subtribe Satyriinae

Genera: Satyrium

Subtribe Coryciinae

Genera: Ceratandra, Corycium

Tribe Triphoreae

Genera: Monophyllorchis, Triphora

Tribe Wulfschlaegeliae

Genera: Wulfschlaegelia

Subfamily Epidendroideae (90–100 genera; 10,000 species)

Tribe Vanilleae

Subtribe Vanillinae (200 species)

Genera: Vanilla

Subtribe Lecanorchidinae

Genera: Lecanorchis

Subtribe Palmorchidinae

- Subtribe Pogoniinae
  - Genera: Diceratosteles
- Tribe Gastrodieae
  - Subtribe Nerviliinae
    - Genera: Nervilia
  - Subtribe Gastrodiinae
    - Genera: Didymoplexis, Gastrodia
  - Subtribe Rhizanthellinae
    - Genera: Cryptanthemis, Rhizanthella
- Tribe Epipogieae
  - Genera: Epipogium, Stereosandra
- Tribe Arethuseae (500 species)
  - Subtribe Arethusinae
    - Genera: Arethusa
  - Subtribe Thuniinae
    - Genera: Thunia
  - Subtribe Blettiinae
    - Alliance Arundina
      - Genera: Arundina
    - Alliance Calopogon
      - Genera: Calopogon
    - Alliance Calanthe
      - Genera: Bletia, Calanthe, Phaius
    - Alliance Plocoglottis
      - Genera: Plocoglotis
    - Alliance Tainia
      - Genera: Tainia
    - Alliance Coelia
      - Genera: Coelia

Alliance Chysis

Genera: Chysis

Subtribe Sobraliina

Genera: Sobralia

Tribe Coelogyneae (400 species)

Subtribe Coelogyneae

Genera: Coelogyne, Dendrochilum, Pleione

Subtribe Adrorhizinae

Genera: Adrorhizon

Tribe Malaxideae (900 species)

Genera: Liparis, Malaxis

Tribe Cryptarrheneae

Genera: Cryptarrhena

Tribe Calypsoeae

Genera: Calypso

Tribe Epidendreae (8,000 species—Cosmopolitan)

Subtribe Eriinae

Alliance Eria

Genera: Eria

Alliance Ceratostylis

Genera: Ceratostylis, Epiblastus, Sarcostoma

Subtribe Podochilinae

Genera: Chilopogon, Podochilus

Subtribe Thelasiinae

Genera: Rhynchophreatia

Subtribe Glomerinae

Genera: Earina, Glomera

Subtribe Laeliinae (40–60 genera; 800 species)

Alliance Isochilus

Genera: Hexisea, Isochilus

Alliance Cattleya

Genera: Brassavola, Broughtonia, Cattleya,  
Encyclia, Laelia, Rhyncholaelia, Schomburgkia,  
Sophronitis

Alliance Barkeria

Genera: Barkeria, Caularthon

Alliance Epidendrum

Genera: Epidendrum

Alliance Leptotes

Genera: Leptotes

Alliance Neocogniauxia

Genera: Neocogniauxia

**HYBRIDS** (136 hybrids—25% of hybrids grown are in  
here, usually tropical American epiphytes)

Genera: Brassocattleya, Brasoepidendrum,  
Brassolaeliocattleya, Cattleytonia, Epicattleya,  
Epilaeliocattleya, Hawkinsara, Laeliocatonia,  
Laeliocattleya, Otaara, Potinara, Schombocattleya,  
Sophrocattleya, Sophrolaelia, Sophrolaeliocattleya

Subtribe Meiracyllinae

Genera: Meiracyllium

Subtribe Pleurothallidinae

Genera: Dracula, Lepanthes, Masdevallia,

Platystele, Pleurothallis, Restrepia, Stelis

Subtribe Dendrobiinae

Genera: Dendrobium  
Subtribe Bulbophyllinae

Genera: Bulbophyllum  
Subtribe Sunipiinae

Genera: Sunipia

Subfamily Vandoideae (300 genera; 5,000 species)  
Tribe Polystachyeae (200 species)

Genera: Polystachya  
Tribe Vandae (130 genera; 1,700 species—Tropical Asia, Pacific Islands,  
Australia, & Africa)

Subtribe Sarcanthinae (100 genera; 1,000+ species—Asia & a few in  
Africa)

Alliance Phalaenopsis (208 hybrids—38% of hybrids  
grown)

Genera: Aerides, Chiloschista, Doritis,  
Phalaenopsis, Rhynchostylis, Sarcochilus

Alliance Vanda

Genera: Arachnis, Ascocentrum, Euanthe, Luisia,  
Renanthera, Vanda, Vandopsis

Alliance Trichoglottis

Genera: Cleisostoma, Gastrochilus, Neofinetia,  
Robiquetia, Trichoglottis

## **HYBRIDS**

Genera: Aeridovanda, Aranda, Ascocenda,  
Asconopsis, Christieara, Doritanopsis, Opsistylis,  
Perreiraara, Renanstylis, Renantanda, Renanthopsis,  
Rhynchovanda, Vandaenopsis

Subtribe Angraecinae (300–400 species—Tropical Africa & Madagascar)

Alliance Angraecum

Genera: Aeranthes, Angraecum, Jumellea

Alliance Campylocentrum

Genera: Campylocentrum

Subtribe Aerangidinae (300–400 species—Tropical Africa & Madagascar)

Genera: Aerangis, Mystacidium

Tribe Maxillarieae (70–80 genera; 1,000 species—Tropical America)

Subtribe Corallorhizinae (Saprophytes)

Genera: Corallorhiza

Subtribe Zygopetalinae (150 species—most hybrids for the tribe appear in this subtribe)

Alliance Warrea

Genera: Otostylis, Warrea

Alliance Zygopetalum

Genera: Pabstia, Promenaea, Zygopetalum

Alliance Bollea

Genera: Bollea, Chonrorhyncha, Cochleanthes, Huntleya, Kefersteinia, Pescatoria, Stenia

Alliance Vargasiella

Genera: Vargasiella

**HYBRIDS**

Genera: Aitkenara, Angulocaste, Bateostylis, Bollopetalum, Chondrobollea, Cochella, Cochlecaste, Cochlenia, Cochlepetalum, Downsara, Durutyara, Hamelwellsara, Huntleanthes, Kanserara, Keferanthes, Lancebirkara, Otololax,

Otonisia, Palmerara, Rotorara, Zygocaste, Zygolum,  
Zygonisia, Zygostylis

Subtribe Bifrenariinae

Genera: Bifrenaria, Xylobium

Subtribe Lycastinae

Genera: Anguloa, Lycaste

Subtribe Maxillariinae (400+ species)

Genera: Maxillaria, Scuticaria

Subtribe Dichaeinae

Genera: Dichaea

Subtribe Telipogoninae

Genera: Telipogon, Trichoceros

Subtribe Ornithocephalinae

Genera: Ornithophalus, Zygostates

Tribe Cymbidieae (100–130 genera; 1,800 species)

Subtribe Cyrtopodiinae (400 species—Asia, Africa, & tropical America)

Alliance Bromheadia

Genera: Bromheadia

Alliance Eulophia

Genera: Eulophia

Alliance Cyrtopodium

Genera: Cymbidiella, Cyrtopodium, Galeandra

Alliance Cymbidium

Genera: Cymbidium, Grammatophyllum

Alliance Dipodium

Genera: Dipodium

## **HYBRIDS**

Genera: Bifrenidium, Cymphiella, Cyrtellia,

Eulocymbidiella, Galeansellia, Graphiella  
Subtribe Genyorchidinae (40+ species)

Genera: Genyorchis  
Subtribe Thecostelinae (40+ species)

Genera: Thecostele  
Subtribe Acriopsidinae (40+ species)

Genera: Acriopsis  
Subtribe Catasetinae (150 species—Epiphytes found in the eastern  
hemisphere)

Genera: Catasetum, Cychnoches, Mormodes  
Subtribe Stanhopeinae (200 species—Epiphytes found in the eastern  
hemisphere)

Genera: Acineta, Coryanthes, Gongora, Stanhopea  
Subtribe Pachyphyllinae (40+ species)

Genera: Pachyphyllum  
Subtribe Oncidiinae (56–78 genera; 900+ species—Tropical America)

Alliance Oncidium (Largest alliance—majority of genera in  
cultivation are here)

Genera: Ada, Brassia, Cochlioda, Miltonia,  
Miltonopsis, Odontoglossum, Oncidium

Alliance Trichocentrum

Genera: Trichocentrum

Alliance Comparettia

Genera: Oncidium (equitants only), Comparettia,  
Ionopsis, Rodriguezia

Alliance Trichophilia

Genera: Notylia, Psychopsis, Trichophilia

Alliance Lockhartia

Genera: Lockhartia



**HYBRIDS** (107 hybrids)

Genera: Aliceara, Bakerara, Beallara, Brassidium,

Burrageara, Colmanara, Degarmoara, Howeara,

Maclellanara, Miltassia, Miltonidium, Odontioda,

Odontobrasia, Odontocidium, Odontonia,

Rodricidum, Trichocidium, Vuylstekeara,

Wilsonara

## Growing Orchids

- Temperature
  - Preferences vary
    - Temperature affects the growth and especially the blooming habits of orchids
    - Cool growing orchids—enjoy winter night temperatures of 50° F and daytime temperatures not exceeding 70°
    - Intermediate growing orchids—prefer winter minimums around 60° and daytime temperatures between 70–85°
      - Most orchids suited for indoor growing are intermediate
    - Warm growing orchids—Night temperatures should not be lower than 65°, and daytime winter temperatures can range from 75–85°
  - A 10–20° temperature fluctuation from night to day is important and triggers them to produce flowers
    - This is most important for cool and intermediate growing orchids
  - Air circulation is important! They do not like stagnant air
- Light
  - Most flourish under bright indirect light
    - Full eastern or western exposure or indirect southern exposure is good
    - As with temperature there is variation for specific orchids in light as well
      - *Phalaenopsis* will burn readily in any direct exposure to sunlight
        - Symptoms of overexposure are yellowed foliage and a plant that looks dehydrated
        - *Phalaenopsis* will have scorch marks on the leaves

- Water & Food
  - Too much water is as deadly as too little
    - Too much can cause root rot and prevent water uptake in the end, dehydrating the plant
  - To be sure the orchid gets enough drench the potting mix and allow it to dry out before watering again to prevent over watering
    - The top layer will dry out more quickly so check below the surface!
    - One simple trick is to compare the weight of an orchid before and after watering
      - But this is not feasible when you have many plants
    - If you are not sure...wait a day
    - Keep in mind orchids do not need as much water during resting periods, when they are not blooming or producing new growth
  - I fertilize every other watering with a weakened 20-20-20 (Bloom Booster) solution. Preferences vary with growers
- Growing Medium
  - This varies with each grower as do choices in containers (clay or plastic)
    - Choose a medium that works well with your habits and growing environment
    - It is important for a mix to be airy, drain well, and decompose slowly
      - I prefer a loose bark, charcoal blend
      - Other options are sphagnum moss, bark, peat moss, tree fern fiber, perlite & soil mixes
- Repotting
  - Orchids like to be pot bound
  - Roots often spread outside the container
    - This does not mean they need to be repotted

- Repot when one or more of the following happen
  - Orchid is top heavy
  - A new orchid shoot is growing outside the container
  - The potting mix has deteriorated
  - The orchid needs dividing, when you want to keep the plant small or give a piece away
    - I like to allow some plants to develop into specimen plants that will produce many flower spikes
  
- Repotting Steps
  - Remove the orchid from its pot
  - Loosen old mix from its roots
  - Remove yellow leaves and dead parts of roots
    - Areas that are dark and soft rather than light and firm
  - Choose a container that is slightly larger than the old
    - Spread the roots evenly within it
  - Add fresh porous mix, filling the spaces between the roots
  - Gently pack the mix, making sure the roots are held firmly in the pot
  - Position the plant so that it is centered and the potting mix reaches or slightly covers the top roots
  - Water the plant thoroughly and let it drain
  
- Pests & Disease
  - Early detection is key to keeping a collection healthy
    - Easier to fix a problem early on
  - Isolate problem plants

- For insects pests like scale, aphids or mealy bugs scrub with a soft brush
- Appearance of fungal or bacterial diseases is a sign of cultural problems.
  - Identify the disease
  - Evaluate growing techniques & adjust them if needed
    - Fungal disease can be a sign of poor air circulation

## Commonly Cultivated Orchids and How to Grow Them

- *Cattleya* (KAT-lee-ah)
  - 60+ spp
  - South America, Mexico & West Indies
  - Plants grow in spring and summer, flower in spring or autumn and rest in winter.
  - Summer maximum temperature 85°
    - Winter day temperature 65°
    - Winter night minimum 55°
  - Provide plenty of light but avoid direct sun
  - Feed spring to autumn
  - There are two groups
    - Unifoliate—produce one leaf from every pseudobulb
    - Bifoliate—Produce two leaves from every pseudobulb
    - The buds grow from the top of the pseudobulb
      - Usually protected in early development by a sheath which splits as the bud elongates
- *Phalaenopsis* (fayl-eh-NOP-sis)
  - 40+ spp
  - The main species cultivated came from the Philippine Islands and Borneo
    - Others came from Thailand & Malasia
  - Plants grow and flower all year
  - Flower spikes follow the growth of a new leaf
    - It is not unusual for more the one flower spike to be in bloom at any given time

- Cutting back a spent flower spike to a node will usually create a 2<sup>nd</sup> blooming on that spike
  - Keep away from drafts
  - Warm growing plants
    - Summer maximum 85°
    - Winter day 75°
    - Winter night minimum 65°
  - Keep shaded
  - Water all year, keeping plants evenly moist
    - Mist exposed roots
  - Feed all year
- *Dendrobium* (den-DROH-bee-um)
- 1,500 spp
  - Asia to Australasia & Pacific Islands
  - Plants grow in the spring & summer
    - Flower in spring & rest in winter
  - Semi-deciduous in cultivation
  - Summer maximum temperature 85°
    - Winter day 60°
    - Winter night minimum 50°
  - Provide good light
  - Water well in summer, keep dryer in winter
    - Mist in spring & summer
  - Feed spring, summer, & autumn
- *Paphiopedilum* (paff-ee-oh-PED-ih-lum)

- 50–60 spp
  - Southern Asia from the Himalayas east to New Guinea
  - Plants grow most of the year
    - Flower in spring, summer, or winter
    - There is no rest season
    - Evergreen
  - Summer maximum temperature 85°
    - Winter day 70°
    - Winter minimum night 60°
  - Provide shade
  - Water all year
    - Do not mist
  - Feed summer & Autumn
  - Many produce beautiful mottled foliage without pseudobulbs
  - Distinct flowers are produced singly on mostly tall stems
    - Lip modified into a pouch
    - Lady's Slipper Orchids
- *Oncidium* (on-SID-ee-um)
- 350–400 spp
  - Native to Central & South America
  - Plants grow in spring and summer; flower in autumn & rest in winter.
    - Evergreen
  - Summer maximum temperature 85°
    - Winter day 65°
    - Winter night minimum 55°



- Water all year
  - Less in winter
  - Mist in spring & summer
- Feed spring to autumn
- Provide good light
- Usually provides tall, slender stems that branch out at the top to produce a shower of bright (usually) yellow flowers
  - Sepals and petals are small
    - Superimposed on an enlarge lip
- *Encyclia* & *Coelogyne* (en-SIK-lee-ah) & (see-lo-GUY-nee / see-LODGE-eh-nee)
  - Numbers & distribution
    - *Encyclia* = 150 spp
      - Tropical America
    - *Coelogyne* = 200 spp
      - West China & India to Malaysia & Pacific Islands
  - Grow in spring and summer
    - Flower in winter, spring, or early autumn
    - Rest in winter
    - Evergreen
  - Summer maximum temperature 80°
    - Winter day 60°
    - Winter night minimum 50°
  - Water less in winter
    - Mist in summer
  - Feed in spring, summer, & autumn

- Most have elongated or round pseudobulbs and neat foliage
- *Encyclia* flowers are usually in small clusters on upright stems at the top of the pseudobulb
  - *Coelogyne* flowers more often appear from inside the new growth
- *Cymbidium* (sim-BID-ee-um)
  - 60+ spp
  - Found in temperate zones of India, Nepal, Bhutan, Malay Peninsula, Australia, Philippines, China, & Japan
  - Flowers initiate in late autumn and continue to early spring
  - Produce rounded pseudobulbs about the size of an egg up to a tennis ball
  - Grow nearly all year
  - Maximum summer temperature of 85°, winter day temperature 60–65°
    - Can withstand temperatures of 28° without damaging the plant
  - Shade from direct sun in summer
  - Water all year round, misting daily in summer
  - Feed spring, summer, and autumn
  - Repot in spring after flowers are spent. Do not repot after June as it may prevent blooming the following year
    - Repot every 2–3 years
- *Odontoglossum* & *Miltonopsis* (oh-don-toh-GLOS-sum) & (mil-toh-nee-OP-sis)
  - *Odontoglossum* = 250spp
    - Tropical America
  - *Miltonopsis* = 5 spp
    - Tropical America

- Plants grow nearly all year with the flower period varying according to type
  - Evergreen
  - Intermediate growing plants
    - Summer maximum to 80°
    - Winter day 60–65°
    - Winter night minimum 54°
  - Shade from direct sunshine in summer
  - Water all year round, keeping plants moist
    - Keep *Miltonopsis* leaves dry, mist *Odontoglossums*
  - Feed all year, more in summer, less in winter
- *Vanda* (VAN–dah)
- Plants grow in spring, summer, and autumn
    - They flower in summer
  - Suspend plants in slatted baskets near the window
  - Summer maximum temperature 85°
    - Winter day 65°
    - Winter night minimum 55°
  - Provide plenty of light but avoid direct sun
  - Feed spring to autumn
  - They have an extensive aerial root system
- *Zygopetalum* (zy–go–PET–a–lum)
- 2 spp
  - Native to Central & tropical South America
  - Plants grow in spring and summer

- Flower in autumn and rest in winter
    - They are evergreen
  - Summer maximum temperature 85°
    - Winter day 60–65°
    - Winter night minimum 50°
  - Keep in shade
  - Water & feed in spring, summer, and autumn
    - Do not mist
  - These have large pseudobulbs and four leaves which are ribbed, narrowly oval and easily damaged
  - Flower spike originates from inside the first leaf on the partially completed pseudobulb and usually produces 6–8 flowers
- *Masdevallia* (mas–deh–VAHL–lee–ah)
- 275 spp
  - Native to Central tropical America & Cuba
  - Grow in summer, flower mainly in the summer
    - No rest period
    - Evergreen
  - Need to be kept cool and airy
  - Summer maximum temperature 75°
    - Winter day 62°
    - Winter night minimum 52°
  - Provide shade
  - Keep moist year round
    - Do not mist
  - Feed in spring, summer, and autumn

- No pseudobulbs, foliage can be tufted and grass-like
    - Larger species have broader leaves
  - Flowers have triangular-shaped sepals
    - May have long or short tails
    - Petals and lip are minute and almost unseen at the flower's center
  - Most have single blooms on a stem
- *Epidendrum* (eh-pee-DEN-drum)
- 400 spp
  - Tropical America
    - 1 sp in West Africa
  - Plants grow in summer
    - Flower in spring
    - Rest in winter
  - Summer maximum temperature 85°
    - Winter day 65°
    - Winter night minimum 55°
  - Most varieties need good light
  - Water well in summer, less in winter
    - Mist in spring & summer
  - Feed spring to autumn
  - Range widely in size
- *Maxillaria* (max-ill-AIR-ee-ah)
- 300 spp
  - The Americas

- Plants grow in summer
  - Flowering season varies with type
  - Plants rest in winter
  - Evergreen
- Summer maximum temperature 85°
  - Winter day 60°
  - Winter night minimum 50°
- Provide plenty of light
- Water all year, less in winter
  - Mist in summer
- Feed in summer, spring, & autumn
- All are fragrant
  - Flowers are produced singly on a stem
  - Few hybrids from this genus
- *Lycaste* (lye-KASS-tee)
  - 25 spp
  - Tropical America
  - Plants grow in spring & summer
    - Flower in spring
    - Rest in winter
    - Deciduous
  - Summer maximum temperature 80°
    - Winter day 60°
    - Winter night minimum 50°
  - Provide good light

- Water in spring, summer, & autumn
    - Do not mist leaves
  - Feed spring to autumn
  - Large cone-shaped pseudobulbs, with several broadly oval, ribbed leaves that are soft in texture and shed after one season
  - Many stems carry single flowers
- *Angraecum* (an-GRY-cum)
- 220 spp
  - Tropical & Sub-tropical Africa, Malagasy, Indian Ocean Islands & the Philippines
  - Plants grow all year, slower in the winter
    - Evergreen
  - Summer maximum temperature 85°
    - Winter day 75°
    - Winter night minimum 65°
  - Provide shade in summer
  - Water all year, less in winter
    - Mist lightly in summer
  - Feed spring to autumn
  - Pairs of leaves form on a central, upwardly growing plant.
  - In winter several large, white, waxy flowers, each with a long spur are produced on a long spike
- *Calanthe* (ka-LAN-thee)
- 120 spp
  - Tropics & sub-tropics from South Africa to SE Asia & Australia; 1 sp in the Americas
  - Plants grow in spring and summer

- Flower in winter and spring
    - Rest in winter
    - Deciduous
  - Summer maximum temperature 85°
    - Winter day 75°
    - Winter night minimum 65°
  - Shade in summer
  - Keep well watered in summer
    - Do not mist
  - Feed spring to autumn
  - Large silvery-green pseudobulbs are topped with broadly oval, short-lived leaves in summer
  - Flowers from resting pseudobulb
    - Spike originates from base
- *Pleione* & *Bletilla* (PLEE–oh-nee) & (bleh–TIL–la)
- Distribution & Numbers
    - *Pleione* have 10 sp
      - SE Asia from India to China
    - *Bletilla* have 10 sp
      - Temperate regions of SE Asia
  - Plants grow in spring & summer
  - Summer maximum temperature 65°
    - Winter day 40°
    - Winter night minimum 33–40°
  - Provide shade in summer



- Water freely in summer
  - Cease watering in autumn
  - Do not mist
- Feed spring to autumn
- Mainly terrestrial

## **Awards for Orchids**

For purposes of hybridization or awards, specific plants may be given clonal or cultivar names, following the species name and enclosed in single quotes, such as *Cattleya skinneri* 'Many'. Any awards that clone might receive then follow the clonal name, e.g. *Cattleya skinneri* 'Many', CCM/ AOS. For crosses the name of the hybrid is followed by a clonal name, such as *Brassidium* Fly Away 'Miami.'

There are several national orchid societies that grant awards for flower quality or cultural excellence: the American Orchid Society (AOS) the Royal Horticultural Society (RHS) Deutsche Orchideen- (DOG), as well as regional and local societies, about 40 in all.

The highest award that the American Orchid Society and Royal Horticultural Society give for flower quality is the First Class Certificate (FCC). The next highest is the Award of Merit (AM). In addition, the American Orchid Society grants a third quality award, the Highly Commended Certificate (HCQ).

Other societies such as the Deutsche Orchideen-Gesellschaft award Gold (GM), Silver (SM) and Bronze Medals (BM) to flowers.

Awards such as the Certificate of Cultural Merit (CCM/AOS) and Certificate of Cultural Commendation (CCC/RHS) recognize superior cultivation of specimen plants.

# Orchid Genera Names

Below is a list of names for cultivated orchid genera followed by their abbreviated names, this list is not complete but represents most of the exhibited genera. The first column is the judging class as defined by the Mid-America Classification adopted on April 11, 2000. The letter 'H' indicates the judging class(es) for hybrids of that genus. The last column indicates whether the genus is a naturally occurring genus or which genera were crossed to produce it.

<u>Class</u>	<u>Genus</u>	<u>Abbreviation</u>	<u>Formula</u>
114	Acacallis	Accls	Natural
060	Acampe	Acp	Natural
117	Acanthephippium		Natural
117	Acinbreea	Acba	Acn x Emb
117	Acineta	Acn	Natural
111	Acostaea		Natural
117	Acriopsis		Natural
102	Acrolophia		Natural
091	Ada	Ada	Natural
090	Adacidium	Adcm	Ada x Onc
084	Adaglossum	Adgm	Ada x Odm
091	Adapasia	Adps	Ada x Aspasia
060	Adenoncos		Natural
091	Adioda	Ado	Ada x Cda
045	Aerangis	Aergs	Natural
060	Aeranthus	Aerth	Natural
046	Aerasconetia	Aescta	Aer x Asctm x Neof
046	Aeridachnis	Aerdns	Aer x Arach
046	Aerides	Aer	Natural

046	Aeridisia	Aersa	Aer x Lsa
046	Aeriditis	Aerdt	Aer x Dor
046	Aeridocentrum	Aerctm	Aer x Asctm
046	Aeridochilus	Aerchs	Aer x Sarco
046	Aeridofinetia	Aerf	Aer x Neof
046	Aeridoglossum	Aergm	Aer x Ascgm
046	Aeridoglottis	Aegts	Aer x Trgl
046	Aeridopsis	Aerps	Aer x Phal
046	Aeridovanda	Aerdv	Aer x V
046	Aeridovanisia	Aervsa	Aer x Lsa x V
114	Aganantes	Agths	Aganisia x Cochleanthes
114	Aganax	Agx	Aganisia x Colax
114	Aganisia	Agn	Natural
114	Aitkenara	Aitk	Otst x Z x Zspm
023A H031	Alamania		Natural
114	Alangreatwoodara	Agwa	Clx x Prom x Z
078	Alexanderara	Alxra	Brs x Cda x Odm x Onc
078	Aliceara	Alcra	Brs x Milt x Onc
018	Allenara	Alna	C x Diacm x Epi x L
048	Alphonsoara	Alph	Arach x Asctm x V x Vdps
117	Altensteinia		Natural
023 H031	Amblostoma	Amb	Natural
060	Amesiella		Natural
117	Amitostigma		Natural
091	Amparoa		Natural

117	Anacamptis		Natural
117	Ancistrochilus		Natural
048	Andrewara	Andw	Arach x Ren x Trgl x V
047	Angraecentrum	Angctm	Angcm x Asctm
060	Angraecopsis		Natural
047	Angraecostylis	Angsts	Angcm x Rhy
047	Angraecum	Angcm	Natural
047	Angraecyrtanthes	Ancyth	Aerth x Angcm X Cyrtes
047	Angraeorchis	Angchs	Angcm x Cyrtes
045	Angrangis	Angrs	Aergs x Angcm
047	Angranthellea	Angtla	Aerth x Angcm x Jum
047	Angranthes	Angth	Aerth x Angcm
047	Angreoniella	Angnla	Angcm x Oenla
114	Anguloa	Ang	Natural
112	Angulocaste	Angcst	Ang x Lyc
116	Anoectochilus	Anct	Natural
117	Anoectomaria	Anctma	Anct x Haem
060	Anota		Natural
102	Ansellia	Aslla	Natural
102	Ansidium	Asdm	Aslla x Cym
091	Antillanorchis		Natural
117	Appendicula		Natural
048	Aracampe	Arcp	Acp x Arach
048	Arachnis	Arach	Natural
048	Arachnoglossum	Arngm	Arach x Ascgm

048	Arachnoglottis	Arngl	Arach x Trgl
048	Arachnopsis	Arnps	Arach x Phal
048	Arachnostylis	Arnst	Arach x Rhy
048	Aranda	Aranda	Arach x V
048	Aranthera	Arnth	Arach x Ren
117	Arethusa	Aret	Natural
018	Arizara	Ariz	C x Dga x Epi
060	Armorum	Armdrm	Natural
117	Arpophylum		Natural
023A H031	Artorima		Natural
117	Arundina		Natural
053	Ascandopsis	Ascdps	Asctm x Vdps
050-052	Ascocenda	Ascda	Asctm x V
049	Ascocentrum	Asctm	Natural
053	Ascocleinetia	Ascln	Asctm x Clctn x Neof
053	Ascofinetia	Ascf	Asctm x Neof
053	Ascogastisia	Agsta	Asctm x Gchls x Lsa
060	Ascoglossum	Ascgm	Natural
053	Ascoglottis	Asgts	Asctm x Trgl
053	Asconopsis	Ascps	Asctm x Phal
048	Ascorachnis	Ascns	Arach x Asctm
053	Ascovandoritis	Asvts	Asctm x Dor x V
091	Aspasia	Asp	Natural
090	Aspasium	Aspsm	Asp x Onc
091	Aspioda	Asid	Asp x Cda

081	Aspodonia	Aspd	Asp x Milt x Odm
084	Aspoglossum	Aspgm	Asp x Odm
046	Ayubara	Ayb	Aer x Arach x Ascgm
078	Bakerara	Bak	Brs x Milt x Odm x Onc
018	Balaguerara	Blga	Bro x Epi x Lps x Tetramicra
084	Baldwinara	Bdwna	Asp x Cda x Odm x Onc
078	Banfieldara	Bnfd	Ada x Brs x Odm
090	Baptacidium	Btcm	Bapt x Onc
091	Baptirettia	Btta	Bapt x Comp
084	Baptistoglossum	Bpgm	Bapt x Odm
091	Baptistonia	Bapt	Natural
045	Barangis	Brgs	Aergs x Brmb
084	Barbosaara	Bbra	Cda x Gom x Odm x Onc
111	Barbosella		Natural
018	Bardendrum	Bard	Bark x Epi
023 H031	Barkeria	Bark	Natural
022	Barkonitis	Bknts	Bark x Soph
060	Barombia	Brmb	Natural
114	Batemannia	Btmna	Natural
114	Bateostylis	Btst	Btmna x Otst
084	Baumannara	Bmnra	Comp x Odm x Onc
117	Beadlea		Natural
078	Beallara	Bllra	Brs x Cda x Milt x Odm
053	Beardara	Bdra	Asctm x Dor x Phal
060	Beclardia		Natural

114	Benzingia		Natural
114	Bifranisia	Bfsa	Aganisia x Bif
114	Bifrenaria	Bif	Natural
102	Bifrenidium	Bifdm	Bif x Zwr
114	Bifreniella	Bifla	Bif x Rud
081	Biltonara	Bilt	Ada x Cda x Milt x Odm
091	Binotia		Natural
020	Bishopara	Bish	Bro x C x Soph
081	Blackara	Blkr	Asp x Cda x Milt x Odm
117	Bletia	Bletia	Natural
117	Bletiaglottis	Blgts	Bletia x Spathoglottis
117	Bletilla	Ble	Natural
020	Bloomara	Blma	Bro x Lps x Ttma
117	Bogardara	Bgd	Asctm x Phal x V x Vdps
048	Bokchoonara	Bkch	Arach x Asctm x Phal x V
114	Bollea	Bol	Natural
114	Bolleanthes	Blth	Bol x Cnths
114	Bollopetalum	Blptm	Bol x Z
060	Bolusiella		Natural
117	Bonatea	Bnt	Natural
117	Bothriochilus		Natural
048	Bovornara	Bov	Arach x Asctm x Rhy x V
087 H88,89	Braasiella		Natural
111	Brachionidium		Natural
091	Brachtia		Natural



117	Brachycorythis		Natural
091	Bradeara	Brade	Comp x Gom x Rdza
078	Brapasias	Brap	Asp x Brs
078	Brassada	Brsa	Ada x Brs
019	Brassavola	B	Natural
078	Brassia	Brs	Natural
078	Brassidium	Brsdm	Brs x Onc
078	Brassioda	Broda	Brs x Cda
024-030	Brassocattleya	Bc	B x C
078	Brassochilus	Brchs	Brs x Lchs
019	Brassodiacrium	Bdia	B x Diacm
018	Brassoepidendrum	Bepi	B x Epi
018	Brassoepilaelia	Bpl	B x Epi x L
019	Brassokeria	Brsk	Bark x B
019	Brassolaelia	Bl	B x L
024-030	Brassolaeliocattleya	Blc	B x C x L
019	Brassomicra	Bmc	B x Tetramicra
019	Brassosophrontitis	Bnts	B x Soph
019	Brassotonia	Bstna	B x Bro
078	Brilliandeara	Brlda	Asp x Brs x Cda x Milt x Odm x Onc
102	Bromheadia	Brom	Natural
020	Broughtonia	Bro	Natural
020	Brownara	Bwna	Bro x C x Diacm
084	Brummittara	Brum	Comp x Odm x Rdza
018	Buiara	Bui	Bro x C x Epi x L x Soph

117	Bulbophyllum	Bulb	Natural
084	Burkhardtara	Bktra	Lchs x Odm x Onc x Rdza
046	Burkillara	Burk	Aer x Arach x V
081	Burrageara	Burr	Cda x Milt x Odm x Onc
109	Cadetia		Natural
117	Caladenia	Calda	Natural
117	Calanthe	Cal	Natural
117	Caloarethusa	Clts	Aret x Cpg
117	Calochilus	Clchs	Natural
117	Calomitra	Cmta	Calochilus x Thelymitra
117	Calopogon	Cpg	Natural
111	Caluera		Natural
117	Calypso		Natural
060	Camorotis		Natural
084	Campbellara	Cmpba	Odm x Onc x Rdza
060	Campylocentrum		Natural
117	Canium		Natural
091	Capanemia		Natural
019	Carmichaelara	Crml	B x Bro x L
084	Carpenterara	Cptr	Bapt x Odm x Onc
046	Carterara	Ctra	Aer x Ren x Vdps
019	Casoara	Csr	B x Bro x Lps
115	Catamodes	Ctmds	Ctsm x Morm
115	Catanoches	Ctnchs	Ctsm x Cyc
102	Catasandra	Ctsda	Ctsm x Gal

115	Catasetum	Ctsm	Natural
024-030	Cattkeria	Cka	Bark x C
023 H24-30	Cattleya	C	Natural
023 H031	Cattleyopsis	Ctps	Natural
031	Cattleyopsisgoa	Ctpga	Ctps x Dga
020	Cattleyopsistonia	Ctpsta	Bro x Ctps
020	Cattleytonia	Ctna	Bro x C
024-030	Cattotes	Ctts	C x Lpt
091	Caucaea		Natural
023 H031	Caularthron	Clrthr	Natural
117	Centrogenium		Natural
117	Centroglossa		Natural
117	Centropetalum		Natural
117	Cephalanathera	Ceph	Natural
117	Cephalantheropsis		Natural
117	Cephalopactis	Cpts	Ceph x Epcts
117	Ceratocentron	Crtn	Natural
060	Ceratochilus		Natural
047	Ceratograecum	Crgm	Angraecum x Ceratocentron
117	Ceratostylis		Natural
060	Chamaeangis		Natural
081	Charlesworthara	Cha	Cda x Milt x Onc
054	Charlieara	Charl	Rhy x V x Vdps
114	Chaubardia		Natural
114	Chaubardiella	Chbl	Natural

114	Cheiradenia		Natural
117	Chelonistele		Natural
046	Chewara	Chew	Aer x Ren x Rhy
053	Chilocentrum	Chctm	Asctm x Chsch
117	Chiloglottis		Natural
060	Chiloschista	Chsch	Natural
114	Chondranthes	Chths	Chdrh x Cnth
114	Chondrobollea	Chdb	Bol x Chdrh
114	Chondrorhyncha	Chdrh	Natural
117	Christensonia		Natural
046	Christiara	Chtra	Aer x Asctm x V
048	Chuanyenara	Chnya	Arach x Ren x Rhy
117	Chyletia	Chlt	Bletia x Chysis
117	Chysis	Chy	Natural
117	Chytroglossa		Natural
117	Cirrhaea		Natural
117	Cirrhoepa	Chpa	Cirrhaea x Stan
117	Cirrhopetalum	Cirr	Natural
117	Cirrhophyllum	Crphm	Bulb x Cirr
091	Cischostalix	Cstx	Cisch x Sgm
091	Cischweinfia	Cisch	Natural
024-030	Clarkeara	Clka	B x C x Diacrium x L x Soph
060	Cleisocalpa	Clclp	Clctn x Pmcpa
060	Cleisocentron	Clctn	Natural
046	Cleisodes	Clsd	Aer x Clctn

060	Cleisofinetia	Clfta	Clctn x Neof
060	Cleisomeria		Natural
077	Cleisonopsis	Clnps	Clctn x Phal
060	Cleisopera	Clspa	Cleis x Micr
060	Cleisoquetia	Clq	Clctn x Rbq
060	Cleisostoma	Cleis	Natural
054	Cleisostylis	Clsty	Clctn x Rhy
060	Cleisotheria	Cltha	Cleis x Pthia
115	Clowesia	Clow	Natural
114	Cochella	Chla	Cnthx x Mdcla
114	Cochleanthes	Cnthx	Natural
112	Cochlecaste	Cccst	Cnthx x Lyc
114	Cochlenia	Cclna	Snthx x Stenia
114	Cochlepetalum	Cceptm	Cnthx x Z
091	Cochlioda	Cda	Natural
117	Coelia		Natural
117	Coeliopsis		Natural
117	Coelogyne	Coel	Natural
114	Colasepalum	Clsm	Colax x Zygosepalum
112	Colaste	Cste	Clx x Lyc
114	Colax	Clx	Natural (synonym for Pabstia)
114	Coleottia	Cta	Colax x Galeottia
081	Colmanara	Colm	Milt x Odm x Onc
091	Comparettia	Comp	Natural
117	Condilago		Natural

022	Conphronitis	Conph	Const x Soph
023 H031	Constantia	Const	Natural
020	Cookara	Cook	Bro x C x Diacm x L
117	Corallorhiza		Natural
117	Coryanthes	Crths	Natural
117	Corybas		Natural
117	Coryhopea	Crhpa	Crths x Stan
116	Corymborkis		Natural
060	Cottonia		Natural
117	Cranichis		Natural
078	Crawshayara	Craw	Asp x Brs x Milt x Onc
117	Crybe		Natural
117	Cryptarrhena		Natural
114	Cryptocentrum		Natural
117	Cryptochilus		Natural
111	Cryptophoranthus		Natural
060	Cryptopus	Crypt	Natural
117	Cryptostylis		Natural
117	Crytoglottis		Natural
102	Cryptopodium	Cryt	Natural
060	Crytorchis	Cyrtes	Natural
091	Cuitlauzina		Natural
117	Cyclopogon		Natural
102	Cycnandra	Cycda	Cyc x Galeandra
115	Cycnoches	Cyc	Natural

115	Cynodes	Cycd	Cyc x Morm
102	Cymasetum	Cymst	Ctsm x Cym
102	Cymbidiella	Cymla	Natural
092 H93-101	Cymbidium	Cym	Natural
102	Cymphiella	Cymph	Cym x Eul
060	Cynorkis	Cyn	Natural
102	Cyperorchis	Cporch	Natural
091	Cypholoron		Natural
044	Cypripedium	Cyp	Natural
102	Cyrtellia	Cyrtl	Aslla x Cyrt
117	Dactylorhiza	Dact	Natural
053	Darwinara	Dar	Asctm x Neof x Rhy x V
053	Debruyneara	Dbra	Asctm x Lsa x V
078	Degarmoara	Dgmra	Brs x Milt x Odm
021	Deiselara	Dsla	L x Schom x Soph
024-030	Dekensara	Dek	B x C x Schom
103-105			
H106-108	Dendrobium	Den	Natural
117	Dendrochilum		Natural
109	Dendrogeria	Denga	Den x Flkga
060	Dendrophylax		Natural
078	Derosaara	Droa	Asp x Brs x Milt x Odm
102	Desmotrichium		Natural
053	Devereuxara	Dvra	Asctm x Phal x V
020	Diabroughtonia	Diab	Bro x Diacm

024-030	Diacattleya	Diaca	C x Diacm
023 H031	Diacrium	Diacm	Natural (synonym of Caularthron)
091	Diadenium		Natural
031	Diakeria	Dkra	Bark x Diacm
021	Dialaelia	Dial	Diacm x L
024-030	Dialaeliocattleya	Dialc	C x Diacm x L
031	Dialaeliopsis	Dialps	Diacm x Lps
045	Diaphanangis	Dpgs	Aergs x Dpthe
060	Diaphananthe	Dpthe	Natural
114	Dichaea		Natural
117	Dickasonia		Natural
021	Dieselara	Dsla	L x Schom x Soph
018	Dillonara	Dill	Epi x L x Schom
060	Dimorphorchis		Natural
023A H031	Diothonaea		Natural
109	Diplocaulobium		Natural
117	Diplomeris		Natural
077	Diplonopsis	Dpnps	Dpra x Phal
060	Diploprora	Dpra	Natural
117	Dipteranthus		Natural
117	Disa	Disa	Natural
117	Disperis		Natural
117	Diuris	Diuris	Natural
031	Domindesmia	Ddma	Dga x Hex
023 H031	Domingoa	Dga	Natural



020	Domintonia	Dmtna	Bro x Dga
053	Dominyara	Dmya	Asctm x Lsa x Neof x Rhy
031	Domliopsis	Dmlps	Dga x Lps
084	Doncollinara	Dclna	Cda x Odm x Rdza
062	Dorandopsis	Ddps	Dor x Vdps
114	Doreenhuntara	Dhta	Bollea x Cochleanthes x Kefersteinia x Pescatoria
053	Doricentrum	Dctm	Asctm x Dor
062	Doriella	Drlla	Dor x King
077	Doriellaopsis	Dllps	Dor x King x Phal
062	Dorifinetia	Dfta	Dor x Neof
062	Doriglossum	Drgm	Ascgm x Dor
062	Dorisia	Drsa	Dor x Luisia
054	Doristylis	Dst	Dor x Rhy
064-076	Doritaenopsis	Dtps	Dor x Phal
061	Doritis	Dor	Natural
055	Dorthera	Dtha	Dor x Ren
116	Dossinia	Doss	Natural
117	Dossinimaria	Dsma	Doss x Haem
114	Downsara	Dwsa	Agn x Btmna x Otst x Zspm
110	Dracula	Drac	Natural
110	Dracuvallia	Drvla	Drac x Masd
055	Dresslerara	Dres	Ascgm x Phal x Ren
115	Dressleria		Natural
110 H110A	Dryadella		Natural

060	Drymoanthus	Dry	Natural
078	Duggerara	Dugg	Ada x Brs x Milt
020	Dunnara	Dnna	Bro x Ctps x Dga
081	Dunningara	Dngra	Asp x Milt x Onc
114	Durutyara	Dtya	Btmna x Osts x Z x Zspm
117	Dyakia		Natural
117	Earina		Natural
053	Eastonara	Eas	Asctm x Gchls x V
048	Edeara	Edr	Arach x Phal x Ren x Vdps
117	Elearethusa	Elsa	Arethusa x Eleorchis
117	Elecalthusa	Ecth	Arethusa x Calopogon x Eleorchus
117	Eleorchis	Elo	Natural
117	Elepogon	Elp	Calopogon x Eleorchis
117	Elleanthus		Natural
018	Eliara	Eliara	Brs x Epi x L x Soph
117	Eltroplectis		Natural
117	Embreea	Emb	Natural
016 H017	Encyclia	Encycl	Natural
109	Ephemerantha	Ephem	Natural
018	Epibarkiella	Epbkl	Bark x Epi x Ngl
117	Epiblastus		Natural
018	Epibrassonitis	Epbns	B x Epi x Soph
018	Epicatonia	Epctn	Bro x C x Epi
018	Epicattleya	Epc	C x Epi
018	Epidella	Epdla	Epi x Ngl

015 H017	Epidendrum	Epi	Natural
018	Epidiacrium	Epdcm	Diacm x Epi
102	Epigeneium		Natural
018	Epiglottis	Epgl	Epi x Scgl
018	Epigoa	Epg	Dga x Epi
018	Epilaelia	Epl	Epi x L
018	Epilaeliocattleya	Eplc	C x Epi x L
018	Epilaeliopsis	Eplps	Epi x Lps
018	Epileptovola	Elva	B x Epi x Leptotes
018	Epimicra	Emc	Epi x Tetramicra
018	Epiopsis	Eps	Ctps x Epi
117	Epipactis	Epcts	Natural
018	Epiphronitis	Ephs	Epi x Soph
018	Epistoma	Epstm	Amb x Epi
018	Epitonia	Eptn	Bro x Epi
117	Eria		Natural
102	Eriopsis		Natural
055	Ernestara	Entra	Phal x Ren x Vdps
091	Erycina	Ercn	Natural
090	Eryidium	Erdm	Ercn x Onc
117	Erythrodes		Natural
060	Esmeralda		Natural
024-030	Estelara	Esta	B x C x Epi x Tetramicra
060	Euanthe	Enth*	Natural
102	Euclades	Eucl	Eulophia x Oeceoclades

102	Eulocymbidiella	Eucmla	Cymla x Eul
102	Eulophia	Eupha	Natural
102	Eulophidium		Natural
102	Eulophiella	Eul	Natural
045	Euryangis	Eugs	Aergs x Echn
060	Eurychone	Echn	Natural
047	Eurygraecum	Eugcm	Angcm x Echn
077	Eurynopsis	Eunps	Echn x Phal
117	Eurystyles		Natural
024-030	Fergusonara	Ferg	B x C x L x Schom x Soph
117	Fernandezia		Natural
020	Fialaara	Fia	Bro x C x L x Lps
109	Flickingeria	Flkga	Natural
020	Fordyceara	Fdca	Bro x C x L x Lps x Tetramicra
078	Forgetara	Fgtra	Asp x Brs x Milt
055	Freedara	Frda	Ascgm x Ren x Vdps
111	Fronдаря		Natural
053	Fujioara	Fjo	Asctm x Trgl x V
024-030	Fujiwarara	Fjw	B x C x Lps
102	Galeandra	Gal	Natural
102	Galeansellia	Gslla	Aslla x Gal
114	Galeopetalum	Gptm	Glta x Z
117	Galeorchis		Natural
117	Galeottia	Glta	Natural
060	Gastisia	Gsta	Gchls x Lsa

060	Gastisocalpa	Gscpa	Gchls x Lsa x Pmcpa
062	Gastritis	Gtts	Dor x Gchls
060	Gastrochiloglottis	Gchgl	Gchls x Trgl
060	Gastrochilus	Gchls	Natural
117	Gastorchis		Natural
060	Gastrosarcochilus	Gsarco	Gchls x Sarco
060	Gastrostoma	Gstm	Clies x Gchls
055	Gastrothera	Gsrth	Gchls x Ren
020	Gauntlettara	Gtra	Bro x Ctps x Lps
102	Geodorum		Natural
090	Georgeblackara	Gbka	Comp x Lchs x Onc x Rdza
117	Gerberara	Gba	B x Diacm x L
091	Gigara	Gigara	Baptistonia x Comparettia x Rodriguezia
018	Gladysyeeara	Glya	B x Bro x C x Ctps x Diacm x Epi x L
054	Glanzara	Glz	Dor x Rhy x Vdps
054	Goffara	Gfa	Lsa x Rhy x V
091	Gohartia	Ghta	Gom x Lhta
091	Gomada	Gmda	Ada x Gom
091	Gomesa	Gom	Natural
091	Gomettia	Gmtta	Comp x Gom
091	Gomochilus	Gmch	Gom x Lchs
084	Gomoglossum	Gmgm	Gom x Odm
117	Gongora	Gga	Natural

078	Goodaleara	Gdlra	Brs x Cda x Milt x Odm x Onc
116	Goodyera		Natural
053	Gottererara	Gott	Asctm x Ren x Vdps
117	Govenia		Natural
102	Grammangis		Natural
102	Grammatocymbidium	Grcym	Cym x Gram
102	Grammatoheadia	Grda	Bromheadia x Gram
102	Grammatophyllum	Gram	Natural
102	Grammatopodium	Grtp	Cyrt x Gram
102	Graphiella	Grpla	Cymla x Grks
102	Graphorkis	Grks	Natural
102	Grobya		Natural
087 H88,89	Gudrunia		Natural
018	Gumara	Gum	Diacm x Epi x L
117	Habenaria	Hab	Natural
116	Haemaria	Haem	Natural
077	Hagerara	Hgra	Dor x Phal x V
023A H31	Hagsatera		Natural
114	Hamelwellsara	Hmwsa	Agn x Btmna x Otst x Z x Zspm
078	Hamiltonara	Hmtn	Ada x Brs x Cda x Odm
046	Hanesara	Han	Aer x Arach x Neof
117	Hapalochilus		Natural
060	Haraella		Natural
020	Hartara	Hart	Bro x L x Soph
023	Hartwegia		Natural

020	Hasegawaara	Hasgw	B x Bro x C x L x Soph
018	Hattoriara	Hatt	B x Bro x C x Epi x L
077	Hausermannara	Haus	Dor x Phal x Vdps
055	Hawaiiara	Haw	Ren x V x Vdps
018	Hawkesara	Hwkra	C x Ctps x Epi
020	Hawkinsara	Hknsa	Bro x C x L x Soph
091	Helcia	Hlc	Natural
091	Hellerorchis		Natural
091	Helpilia	Hpla	Hlc x Trpla
024-030	Herbertara	Hbtr	C x L x Schom x Soph
117	Herschelia	Hers	Natural (invalid name for Herschelianthe)
117	Herschelianthe		Natural
117	Herschelioidisa	Hrds	Disa x Herschelia
116	Hetaeria		Natural
023 H031	Hexadesmia	Hex	Natural
023 H031	Hexisea	Hxsa	Natural
024-030	Higashiara	Hgsh	C x Diacm x L x Soph
020	Hildaara	Hdra	Bro x Lps x Schom
053	Himoriara	Hmra	Asctm x Phal x Rhy x V
117	Hintonella		Natural
117	Hippeophyllum		Natural
087 H88,89	Hispanella		Natural
060	Holcoglossum	Hlcgl	Natural
117	Holothrix		Natural

048	Holttumara	Holtt	Arach x Ren x V
023A H31	Homalopetalum		Natural
024-030	Hookerara	Hook	B x C x Diacm
117	Houlletia		Natural
090	Howeara	Hwra	Lchs x Onc x Rdza
054	Hueylihara	Hylra	Neof x Ren x Rhy
053	Hugofreedara	Hgfda	Asctm x Dor x King
018	Hummelara	Humm	Bark x B x Epi
114	Huntleanthes	Hnth	Cnth x Hya
114	Huntleya	Hya	Natural
091	Hybochilus		Natural
060	Hygrochilus	Hygrch	Natural
102	Inobulbon		Natural (synonym of Inobulbum)
117	Ione		Natural
091	Ionettia	Intta	Comp x Inps
090	Ionocidium	Incdm	Inps x Onc
091	Ionopsis	Inps	Natural
048	Irvingara	Irv	Arach x Ren x Trgl
023A H31	Isabelia		Natural
046	Isaoara	Isr	Aer x Asctm x Phal x V
117	Isochilus		Natural
024-030	Iwanagara	Iwan	B x C x Diacm x L
018	Izumiara	Izma	C x Epi x L x Schom x Soph
023A H31	Jacquiella		Natural
018	Jewellara	Jwa	Bro x C x Epi x L



020	Jimenezara	Jmzra	Bro x L x Lps
054	Joannara	Jnna	Ren x Rhy x V
078	Johnkellyara	Jkl	Brs x Lchs x Onc x Rdza
018	Johnyeeara	Jya	B x C x Epi x L x Schom x Soph
060	Jumanthes	Jmth	Aerth x Jum
060	Jumellea	Jum	Natural
053	Kagawara	Kgw	Asctm x Ren x V
117	Kalimpongia		Natural (synonym of Dickasonia)
114	Kanzerara	Kza	Chdrh x Prom x Z
018	Kawamotoara	Kwmta	B x C x Dga x Epi x L
114	Keferanthes	Kefth	Cnths x Kefst
114	Kefersteinia	Kefst	Natural
114	Keforea	Kfr	Kefst x Pes
117	Kegeliella		Natural
060	Kingidium		Natural
060	Kingiella	King	Natural (synonym of Kingidium)
053	Kippenara	Kpa	Asctm x Dor x Rhy x V
018	Kirchara	Kir	C x Epi x L x Soph
021	Klehmara	Klma	Diacm x L x Schom
053	Knappara	Knp	Asctm x Rhy x V x Vdps
053	Knudsonara	Knud	Asctm x Neof x Ren x Rhy x V
114	Koellensteinia		Natural
053	Komkrisara	Kom	Asctm x Ren x Rhy
091	Konantzia		Natural
020	Kraussara	Krsa	Bro x C x Diacm x Lps

084	Kriegerara	Kgra	Ada x Cda x Odm x Onc
117	Lacaena		Natural
021	Laelia	L	Natural
020	Laeliocatonia	Lctna	Bro x C x L
024-030	Laeliocattkeria	Lcka	Bark x C x L
024-030	Laeliocattleya	Lc	C x L
021	Laeliokeria	Lkra	Bark x L
024-030	Laeliopleya	Lpya	C x Lps
023 H031	Laeliopsis	Lps	Natural
020	Laelonia	Lna	Bro x L
084	Lagerara	Lgra	Asp x Cda x Odm
053	Laipenchiara	Lpca	Asctm x Dor x Neof x Rhy x V
114	Lancebirkara	Lbka	Bol x Cnths x Pes
023A H31	Lanium		Natural
117	Lankesterella		Natural
054	Lauara	Lauara	Ascgm x Ren x Rhy
048	Laycockara	Lay	Arach x Phal x Vdps
053	Leaneyara	Lnya	Asctm x Rhy x Sarcho x V
048	Leeara	Leeara	Arach x V x Vdps
018	Lemaireara	Lemra	Bro x Ctps x Epi
091	Lemboglossum		Natural
091	Leochilus	Lchs	Natural
090	Leocidium	Lcdm	Lchs x Onc
090	Leocidmesa	Lcmsa	Gom x Lchs x Onc
091	Leocidpasia	Lcdpa	Asp x Lchs x Onc

111	Lepanopsis	Lep	Natural
111	Lepanthes	Lths	Natural
111	Lepanthopsis	Lpths	Natural
018	Leptodendrum	Lrtdm	Epi x Lpt
031	Leptokeria	Lptka	Bark x Lpt
021	Leptolaelia	Lptl	L x Lpt
023 H031	Leptotes	Lpt	Natural
019	Leptovola	Lptv	B x Lpt
018	Leslieara	Lesl	Bro x Ctps x Diacm x Epi
046	Lewisara	Lwsra	Aer x Arach x Asctm x V
021	Liaopsis	Liaps	L x Lps
077	Lichtara	Licht	Dor x Gchls x Phal
090	Liebmanara	Lieb	Asp x Cda x Onc
102	Lillochilus		Natural
048	Limara	Lim	Arach x Ren x Vdps
114	Lindleyella		Natural
020	Lioponia	Lpna	Bro x Lps
117	Liparis		Natural
060	Listrostachys		Natural
090	Lockcidium	Lkcdm	Lhta x Onc
090	Lockcidimesa	Lkda	Gal x Onc
091	Lockhartia	Lhta	Natural
091	Lockochilettia	Lkctta	Comp x Lchs x Lhta
091	Lockochilus	Lkchs	Lchs x Lhta
091	Lockogochilus	Lkgch	Gom x Lchs x Lhta

091	Lockopilia	Lckp	Lhta x Trpla
091	Lockostalix	Lkstx	Lhta x Sgmx
091	Lophiaris		Natural
019	Lowara	Low	B x L x Soph
046	Lowsonara	Lwnra	Aer x Asctm x Rhy
053	Luascotia	Lscta	Asctm x Lsa x Neof
116	Ludisia		Natural
117	Lueddemannia		Natural
053	Luicentrum	Lctm	Asctm x Lsa
060	Luichilus	Luic	Lsa x Sarco
060	Luinetia	Lnta	Lsa x Neof
077	Luinopsis	Lnps	Lsa x Phal
059	Luisanda	Lsnd	Lsa x V
060	Luisia	Lsa	Natural
054	Luistylis	Lst	Lsa x Rhy
059	Luivanetia	Lvta	Lsa x Neof x V
054	Lutherara	Luth	Phal x Ren x Rhy
112	Lycaste	Lyc	Natural
112	Lycasteria	Lystr	Bif x Lyc
117	Lycomormium		Natural
046	Lymanara	Lynra	Aer x Arach x Ren
024-030	Lyonara	Lyon	C x L x Soph
114	Macolmara	Mclm	Cochloda x Colax x Prom x Zygo
046	Maccoyara	Mcyra	Aer x V x Vdps
048	Macekara	Maka	Arach x Phal x Ren x V x Vdps

078	Maclellanara	Mclna	Brs x Odm x Onc
019	Maclemoreara	Mclmra	B x L x Schom
116	Macodes	Mac	Natural
117	Macomaria	Mcmr	Haem x Mac
091	Macradenia	Mcdn	Natural
091	Macradesa	Mcdsa	Gom x Mcdn
091	Macroclinium		Natural
024-030	Mailamaiara	Mai	C x Diacm x L x Schom
117	Malaxis		Natural
060	Malcolmcampbellara	Mcba	Drymoanthus x Plectorrhiza x Sarcophilus
110	Masdevallia	Masd	Natural
114	Masonara	Msna	Agn x Btmna x Clx x Otst x Prom x Zspm
024-030	Matsudaara	Msda	Bark x C x L x Soph
081	Maunderara	Mnda	Ada x Cda x Milt x Odm x Onc
112	Maxillacaste	Mxcst	Lyc x Max
113	Maxillaria	Max	Natural
113	Maxilobium	Mxlb	Max x Xyl
018	Maymoirara	Mymra	C x Epi x Lps
117	Mediocalcar		Natural
053	Meechaiara	Mchr	Asctm x Dor x Phal x Rhy x V
117	Megaclinium		Natural
023 H031	Meiracyllium	Mrclm	Natural
114	Menadenium	Mndnm*	Natural

114	Mendoncella	Mdcla	Natural
114	Mendosepalum	Mdspl	Mdcla x Zspm
091	Mesospinidium		Natural
091	Mexicoa		Natural
44B	Mexipedium		Natural
046	Micholitzara	Mchza	Aer x Asctm x Neof x V
060	Microcoelia		Natural
060	Micropera	Micr	Natural
081	Milpasia	Mpsa	Asp x Milt
081	Milpilia	Mpla	Milt x Trpla
081	Miltada	Mtad	Ada x Milt
081	Miltadium	Mtadm	Ada x Milt x Onc
081	Miltarettia	Mtta	Comp x Milt
078	Miltassia	Mtssa	Brs x Milt
091	Miltistonia	Mtst	Bapt x Milt
079 H080	Miltonia	Milt	Natural
081	Miltonidium	Mtdm	Milt x Onc
081	Miltonioda	Mtda	Cda x Milt
079 H080	Miltoniopsis	Mltnps	Natural
117	Mischobulbon		Natural (synonym of Mischobulbum)
024-030	Mizutara	Miz	C x Diacm x Schom
055	Moirara	Moir	Phal x Ren x V
048	Mokara	Mkra	Arach x Asctm x V
114	Monkhouseara	Mkhsa	Aganixia x Btmna x Colax x Otst x Z x Zspm

115	Monnierara	Monn	Ctsm x Cyc x Morm
117	Monomeria		Natural
046	Moonara	Mnra	Aer x Asctm x Neof x Rhy
020	Mooreara	Mora	B x Bro x C x L x Schom x Soph
115	Mormodes	Morm	Natural
114	Mormolyca	Mlca	Natural
081	Morrisonara	Mrsa	Ada x Milt x Odm
018	Moscosoara	Mscra	Bro x Epi x Lps
117	Myoxanthus		Natural
023	Myrmecophila		Natural
060	Mystacidium	Mycdm	Natural
023 H031	Nageliella	Ngl	Natural
046	Nakagawaara	Nkgwa	Aer x Dor x Phal
053	Nakamotoara	Nak	Asctm x Neof x V
023A H31	Nanodes		Natural
020	Nashara	Nash	Bro x Ctps x Diacm
053	Naugleara	Naug	Asctm x Ascgm x Ren
046	Neoaristylis	Nrst	Aer x Neof x Rhy
060	Neobathiea	Nbth	Natural
060	Neobatopus	Nbps	Crypt x Nbth
117	Neobenthamia		Natural
023A H31	Neocogniauxia		Natural
091	Neodryas		Natural
060	Neofinetia	Neof	Natural
114	Neogardneria	Ngda	Natural

060	Neoglossum	Neogm	Ascgm x Neof
047	Neograecum	Ngrcm	Asgcm x Neof
091	Neokoehleria		Natural
023A H31	Neolauchea		Natural
023A H31	Neolehmannia		Natural
114	Neomoorea		Natural
054	Neostylis	Neost	Neof x Rhy
117	Nephelaphyllum		Natural
048	Nigara	Ngara	Arach x Ascgm x Ren
046	Nobleara	Nlra	Aer x Ren x V
046	Nonaara	Non	Aer x Ascgm x Ren
046	Nornahamamotoara	Nhmta	Aer x Rhy x Vdps
018	Northenara	Nrna	C x Epi x L x Schom
078	Norwoodara	Nwda	Brs x Milt x Onc x Rdza
091	Notylettia	Ntlt	Comp x Nlt
091	Notylia	Ntl	Natural
090	Notylidium	Ntldm	Ntl x Onc
091	Notyloopsis	Ntlps	Inps x Ntl
117	Oberonia		Natural
111	Octomeria		Natural
114	Oddyara	Oddy	Cnthx x Kfst x Pes
084	Odontioda	Oda	Cda x Odm
078	Odontobrassia	Odbrs	Brs x Odm
084	Odontocidium	Odcdm	Odm x Onc
082 H083	Odontoglossum	Odm	Natural



081	Odontonia	Odtna	Milt x Odm
084	Odontopolia	Odpla	Odm x Trpla
084	Odontorettia	Odrta	Comp x Odm
102	Oecoclades		Natural
060	Oeonia		Natural
060	Oeoniella	Oenla	Natural
023 H031	Oerstedella	Orstdl	Natural
053	Okaara	Okr	Asctm x Ren x Rhy x V
091	Oliveriana		Natural
090	Oncidenia	Oncna	Mcdn x Onc
090	Oncidesa	Oncsa	Gom x Onc
090	Oncidettia	Onctta	Comp x Onc
090	Oncidiella	Onclla	Onc x Rdzlla
090	Oncidioda	Oncda	Cda x Onc
085,87			
H86,88,89	Oncidium	Onc	Natural
090	Oncidpilia	Oncpa	Onc x Trpla
053	Onoara	Onra	Asctm x Ren x V x Vdps
111	Ophidion		Natural
117	Ophrys		Natural
057-059	Opsisanda	Opsis	V x Vdps
024-030	Opsiscattleya	Opsct	C x Ctps
054	Opsistylis	Opst	Rhy x Vdps
117	Orchiophrys	Orcys	Ophrys x Orchis
117	Orchis	Orchis	Natural

117	Orchiserapias	Orsps	Orchis x Srps
023A H31	Orleansis		Natural
114	Ornithidium		Natural
117	Ornithocephalus		Natural
060	Ornithochilus		Natural
090	Ornithocidium	Orncm	Onc x Orpha
091	Ornithophora	Orpha	Natural
020	Osmentara	Osmt	Bro x C x Lps
082	Osmoglossum	Osmgls	Natural
020	Otaara	Otr	B x Bro x C x L
115	Otocolax	Otcx	Clx x Otst
082	Otoglossum	Otglss	Natural
114	Otonisia	Otnsa	Agn x Otst
114	Otosepalum	Otspm	Otst x Zspm
114	Otostylis	Otst	Natural
077	Owensara	Owsr	Dor x Phal x Ren
114	Pabstia	Pab	Natural
053	Pageara	Pga	Asctm x Lsa x Rhy x V
091	Palermoara	Pal	Ada x Comp x Gomesa
114	Palmerara	Plmra	Btmna x Otst x Zspm
091	Palumbina		Natural
019	Panczkara	Pzka	B x Epi x L x Soph
117	Panisea		Natural
055	Pantapaara	Pntp	Ascgm x Ren x V
117	Paphinia	Pna	Natural

033 H34-43	Paphiopedilum	Paph	Natural
091	Papperitzia		Natural
060	Parachilus	Prcls	Psarco x Sarco
114	Paradisanthus	Pdsnth	Natural
060	Paraphalaenopsis	Prphln	Natural
060	Parasarcochilus	Psarco	Natural
046	Parnataara	Parn	Aer x Arach x Phal
053	Paulara	Plra	Asctm x Dor x Phal x Ren x V
046	Paulsenara	Plsra	Aer x Arach x Trgl
117	Pecteilis	Pctls	Natural
117	Pegonia		Natural
046	Pehara	Peh	Aer x Arach x V x Vdps
053	Pelacentrum	Plctm	Asctm x Pthia
060	Pelachilus	Pecls	Gchls x Pthia
054	Pelastylis	Pelst	Pthia x Rhy
060	Pelatantheria	Pthia	Natural
062	Pelatoritis	Pltrs	Dor x Pthia
117	Pelexia		Natural
053	Pepeara	Ppa	Asctm x Dor x Phal x Ren
117	Peristeria		Natural
046	Perreiraara	Prra	Aer x Rhy x V
114	Pescarhyncha	Psrha	Pes x Chdrh
114	Pescatobollea	Psbol	Bol x Pes
114	Pescatorea	Pes	Natural
114	Pescawarrea	Psw	Pes x Wra

114	Pescoranthus	Psnth	Cnthx x Pes
078	Pettitara	Pett	Ada x Brs x Onc
117	Phaiocalanthe	Phcal	Cal x Phaius
102	Phaiocymbidium	Phcym	Cym x Phaius
117	Phaius	Phaius	Natural
063 H64-76	Phalaenopsis	Phal	Natural
046	Phalaerianda	Phda	Aer x Phal x V
077	Phalandopsis	Phdps	Phal x Vdps
077	Phalanetia	Phnta	Neof x Phal
077	Phaliella	Phlla	King x Phal
114	Phillipsara	Phill	Cnthx x Stenia x Z
117	Pholidota		Natural
044	Phragmipaphium	Phrphm	Paph x Phrag
044	Phragmipedium	Phrag	Natural
117	Phreatia		Natural
117	Phymatidium		Natural
111	Physosiphon		Natural
117	Piperia		Natural
117	Plantanthera		Natural
117	Platyclinis		Natural
117	Platyrhiza		Natural
111	Platystele		Natural
060	Plectochilus	Plchs	Plrhz x Sarco
060	Plectorrhiza	Plrhz	Natural
047	Plectrelgraecum	Plgcm	Angcm x Plmths

060	Plectrelminthus	Plmths	Natural
091	Plectrophora		Natural
117	Pleione	Pln	Natural
111	Pleurobotryum		Natural
111	Pleurothallis	Pths	Natural
111	Pleurothallopsis		Natural
060	Podangis		Natural
117	Pogonia		Natural
117	Polycynis	Pcn	Natural
091	Polyotidium		Natural
060	Polyrrhiza		Natural
117	Polystachya	Pol	Natural
053	Pomacentrum	Pmctm	Asctm x Pmcpa
060	Pomatisia	Pmtsa	Lsa x Pmcpa
060	Pomatocalpa	Pmcpa	Natural
060	Pomatochilus	Pmtis	Pmcpa x Sarcochilus
023A H31	Ponera		Natural
117	Ponerorchis		Natural
117	Ponthieva		Natural
053	Pooleara	Polra	Asctm x Ascgm x Phal x Ren
117	Porpax		Natural
111	Porroglossum	Prgm	Natural
110A	Porrovallia	Pvla	Masd x Prgm
054	Porterara	Prta	Rhy x Sarco x V
024-030	Potinara	Pot	B x C x L x Soph

117	Prescottia		Natural
114	Prolax	Prx	Clx x Prom
114	Promenaea	Prom	Natural
114	Promenantes	Prths	Cnths x Prom
114	Propetalum	Pptm	Prom x Z
102	Pseuderia		Natural
023A H31	Pseudolaelia		Natural
117	Psychilis		Natural
091	Psychopsiella		Natural
091	Psychopsis	Psychp	Natural
091	Psygmorchis		Natural
060	Pteroceras	Ptrcrs	Natural
091	Pterostemma		Natural
117	Pterostylis	Ptst	Natural
091	Quekettia		Natural
055	Raganara	Rgn	Ren x Trgl x V
048	Ramasamyara	Rmsya	Arach x Rhy x V
060	Rangaeris		Natural
024-030	Recchara	Recc	B x C x L x Schom
046	Renades	Rnds	Aer x Ren
055	Renafinanda	Rfnda	Neof x Ren x V
055	Renaglottis	Rngl	Ren x Trgl
053	Renacentrum	Rnctm	Asctm x Ren
048	Renanda	Rnnd*	Arach x Ren x V
055	Renanetia	Rnet	Neof x Ren

055	Renanopsis	Rnps	Ren x Vdps
054	Renanstylis	Rnst	Ren x Rhy
055	Renantanda	Rntda	Ren x V
055	Renanthera	Ren	Natural
060	Renantherella		Natural
055	Renanthoglossum	Rngm	Ascgm x Ren
077	Renanthopsis	Rnthps	Phal x Ren
055	Renaparanopsis		Ren x Paraphalaenopsis
111	Restrepia	Rstp	Natural
111	Restrepiella		Natural
111	Restrepiopsis		Natural
060	Rhinerrhiza	Rhin	Natural
060	Rhinochilus	Rhincs	Rhin x Sarco
053	Rhynchocentrum	Rhctm	Asctm x Rhy
023 H031	Rhyncholaelia	Rhynch	Natural
054	Rhynchonopsis	Rhnps	Phal x Rhy
046	Rhynchorides	Rhrds	Aer x Rhy
054	Rhynchostylis	Rhy	Natural
054	Rhynchovanda	Rhv	Rhy x V
054	Rhyndoropsis	Rhdps	Dor x Phal x Rhy
117	Rhytionanthos		Natural
053	Richardmizutaara	Rcmza	Asctm x Phal x Vdps
084	Richardsonara	Rchna	Asp x Odm x Onc
048	Ridleyara	Ridl	Arach x Trgl x V
060	Robifinetia	Rbf	Neof x Rbq

046	Robinara	Rbnra	Aer x Asctm x Ren x V
060	Robiqueta	Rbq	Natural
054	Robostylis	Rbst	Rhy x Robiqueta
078	Roccafarteara	Rcfta	Asp x Brs x Cda x Odm
078	Rodrassia	Rdssa	Brs x Rdza
091	Rodrettia	Rdtta	Comp x Rdza
091	Rodrettiopsis	Rdtps	Comp x Inps x Rdza
091	Rodrichilus	Rdchs	Lchs x Rdza
090	Rodricidium	Rdcm	Onc x Rdza
091	Rodridenia	Rden	Mcdn x Rdza
084	Rodriglossum	Rdgm	Odm x Rdza
091	Rodriguezia	Rdza	Natural
091	Rodrigueziella	Rdzlla	Natural
091	Rodrigueziopsis		Natural
091	Rodriopsis	Rodps	Inps x Rdza
081	Rodritonia	Rdtna	Milt x Rdza
078	Rohriara	Rhla	Ada x Aspasia x Brs
024-030	Rolfeara	Rolf	B x C x Soph
046	Ronnyara	Rnya	Aer x Asctm x Rhy x V
053	Rosakirschara	Rskra	Asctm x Neof x Ren
055	Roseara	Rsra	Dor x King x Phal x Ren
082	Rossioglossum	Rssgls	Natural
018	Rothara	Roth	B x C x Epi x L x Soph
114	Rotorara	Rtra	Bol x Cnths x Kefst
114	Rudolfiella	Rud	Natural



053	Rumrillara	Rlla	Asctm x Neof x Rhy
084	Ruppara	Rppa	Gomesa x Odm x Onc
091	Rusbyella		Natural
060	Saccolabiopsis		Natural
060	Saccolabium	Saccm	Natural
046	Sagarikara	Sgka	Aer x Arach x Rhy
018	Sallyyeeara	Sya	B x Bro x C x Ctps x Diacm x Epi x L x Schom x Soph
111	Salpistele		Natural
078	Sanderara	Sand	Brs x Cda x Odm
091	Sanderella		Natural
046	Sanjumeara	Sjma	Aer x Neof x Rhy x V
053	Saplalaaara	Spla	Asctm x Ren x Rhy x V x Vdps
048	Sappanara	Sapp	Arach x Phal x Ren
117	Saracenella		Natural
060	Sarcanthus	SnthS	Natural
053	Sarcocentrum	Srctm	Asctm x Sarco
060	Sarcochilus	Sarco	Natural
117	Sarcoglottis		Natural
117	Sarcoglyphis		Natural
060	Sarcomoanthus	Sran	Sarco x Dry
077	Sarconopsis	Srnps	Phal x Sarco
060	Sarcophyton		Natural
102	Sarcopodium		Natural
060	Sarcorrhiza	Srza	Rhin x Sarco

117	Sarcostoma		Natural
055	Sarcothera	Srth	Ren x Sarco
059	Sarcovanda	Srv	Sarco x V
046	Saridestylis	Srdts	Asr x Rhy x Snths
060	Sarpariza	Spza	Parasarcochilus x Plectorrhiza x Sarchochilus
054	Sartylis	Srts	Rhy x Sarco
117	Satyrium	Satm	Natural
078	Sauledaara	Sdra	Asp x Brs x Milt x Onc x Rdza
091	Saundersia		Natural
117	Sauroglossum		Natural
111	Scaphosepalum		Natural
023 H031	Scaphyglottis	Scgl	Natural
091	Scelochilus		Natural
078	Schafferara	Schfa	Asp x Brs x Cda x Milt x Odm
081	Schilligerara	Slga	Asp x Gomesa x Milt
117	Schlimmia		Natural
060	Schoenorchis		Natural
019	Schombavola	Smbv	B x Schom
020	Schombocatonina	Smbcna	Bro x C x Schom
024-030	Schombocattleya	Smbc	C x Schom
031	Schombodiacrium	Smbdcm	Diacm x Schom
018	Schomboepidendrum	Smbep	Epi x Schom
021	Schombolaelia	Smb1	L x Schom
031	Schombolaeliopsis	Smlp	Lps x Schom

020	Schombonia	Smbna	Bro x Schom
022	Schombonitis	Smbts	Schrom x Soph
023 H031	Schromburgkia	Schom	Natural
046	Scottara	Sctt	Aer x Arach x Lsa
018	Scullyara	Scu	C x Epi x Schom
114	Scuticaria		Natural
031	Seahexa	Sxa	Hex x Hxsa
060	Sedirea	Sdr	Natural
081	Segerara	Sgra	Aspasia x Cda x Milt x Odm x Onc
044	Selenipedium	Sel	Natural
117	Serapias	Srps	Natural
021	Severinara	Sev	Diacm x L x Soph
053	Sheehanara	Shn	Ascgm x Ren x Trgl
053	Shigeuraara	Shgra	Asctm x Ascgm x Ren x V
020	Shipmanara	Shipm	Bro x Diacm x Schom
078	Shiveara	Shva	Asp x Brs x Odm x Onc
053	Sidranara	Sidr	Ascrm x Phal x Ren
117	Siegeristara	Sgrt	Bulb x Cirr x Trias
117	Sievekingia		Natural
090	Sigmacidium	Sgdm	Onc x Sgmx
091	Sigmatostalix	Sgmx	Natural
046	Silpapasertara	Silpa	Aer x Asctm x Snths
077	Sladeara	Slad	Dor x Phal x Sarco
060	Smitinandia		Natural
047	Sobennigraecum	Sbgcm	Angcm x Sbk

060	Sobennikoffia	Sbk	Natural
117	Sobralia	Sob	Natural
117	Solenidiopsis		Natural
091	Solenidium		Natural
024-030	Sophrocattleya	Sc	C x Soph
021	Sophrolaelia	Sl	L x Soph
024-030	Sophrolaeliocattleya	Slc	C x L x Soph
023 H031	Sophranitella	Sphrnt	Natural
022	Sophronitis	Soph	Natural
117	Soterosanthus		Natural
117	Spathoglottis	Spa	Natural
060	Sphyrarhynchus		Natural
117	Sphyrastylis		Natural
117	Spiranthes		Natural
053	Srisukara	Srka	Asctm x Cleis x Rhy
021	Staalara	Staal	Bark x L x Soph
018	Stacyara	Stac	C x Epi x Soph
053	Stamariaara	Stmra	Asctm x Phal x Ren x V
018	Stanfieldara	Sfdra	Epi x L x Soph
117	Stangora	Stga	Gga x Stan
117	Stanhocycnis	Stncn	Pcn x Stan
117	Stanhopea	Stan	Natural
060	Staurochilus	Stchls	Natural
060	Stauropsis	Strpss	Natural
111	Stelia		Natural

111	Stelis		Natural
020	Stellamizutaara	Stlma	Bro x Bro x C
117	Stellilabium		Natural
114	Stenia	Stenia	Natural
114	Steniella	Stla	Chbl x Steinia
114	Stenocoryne		Natural
117	Stenoglottis	Sngl	Natural
117	Stenorrhynchus		Natural
060	Stereochilus		Natural
084	Stewartara	Stwt	Ada x Cda x Odm
117	Stolzia		Natural
060	Summerhayesia		Natural
020	Susanperreiraara	Sprra	Bro x C x Tetramicra
048	Sutingara	Sut	Arach x Asctm x Phal x V x Vdps
018	Symmonsara	Syma	B x C x Epi x Schom
082	Symphyglossum	Symphy	Natural
082	Systeloglossum		Natural
060	Taeniophyllum		Natural
117	Tainia		Natural
117	Telipogon		Natural
048	Teohara	Thra	Arach x Ren x V x Vdps
024-030	Tetracattleya	Ttct	C x Ttma
031	Tetradiacrium	Ttdm	Diacm x Ttma
031	Tetrakeria	Ttka	Bark x Ttma
031	Tetraliopsis	Ttps	Lps x Ttma

023 H031	Tetramicra	Ttma	Natural
020	Tetratonia	Ttna	Bro x Ttma
117	Thelasis		Natural
117	Thelymitra	Thel	Natural
117	Theocosteles		Natural
045	Thesaera	Thsra	Aergs x Aerth
102	Thompsonara	Thmpa	Ctsm x Cym x Gram
060	Trixspermum		Natural
117	Thunia	Thu	Natural
082	Ticoglossum		Natural
117	Tipularia		Natural
087 H88,89	Tolumnia		Natural
077	Trautara	Trta	Dor x Lsa x Phal
048	Trevorara	Trev	Arach x Phal x V
117	Trias	Trias	Natural
117	Triaspetalum	Tspt	Cirr x Trias
117	Triasphyllum	Tphm	Bulb x Trias
091	Trichocentrum	Trctm	Natural
117	Trichoceros		Natural
090	Trichocidium	Trcdm	Onc x Trctm
060	Trichoglottis	Trgl	Natural
077	Trichonopsis	Trmps	Phal x Trgl
091	Trichopilia	Trpla	Natural
060	Trichopsis	Trcps	Trgl x Vdps
111	Trichosalpinx		Natural

054	Trichostylis	Trst	Rhy x Trgl
059	Trichovanda	Trev	Trgl x V
060	Tridactyle		Natural
114	Trigolyca	Trgca	Mcla x Trgdm
114	Trigonidium	Trgdm	Natural
111	Trisetella		Natural
018	Trisuloara	Tsla	Bark x B x C x Epi x L x Soph
091	Trizeuxis		Natural
047	Tubaecum	Tbcm	Angcm x Tblm
060	Tuberolabium	Tblm	Natural
018	Tuckerara	Tuck	C x Diacm x Epi
114	Tuescheria		Natural
020	Turnbowara	Tbwa	Bark x Bro x C
060	Uncifera		Natural
054	Uptonara	Upta	Phal x Rhy x Sarco
018	Vacherotara	Vach	B x Bro x C x Epi x L x Soph
081	Vanalstyneara	Vnsta	Milt x Odm x Onc x Rdza
059	Vancampe	Vcp	Acp x V
056 H57-59	Vanda	V	Natural
048	Vandachnis	Vchns	Arach x Vdps
059	Vandaenopsis	Vdnps	Phal x V
059	Vandaeranthes	Vths	Aerth x V
053	Vandewegheara	Vwga	Asctm x Dor x Phal x V
059	Vandofinetia	Vf	Neof x V
046	Vandofinides	Vfds	Aer x Neof x V

046	Vandopsides	Vdpsd	Aer x Vdps
060	Vandopsis	Vdps	Natural
062	Vandoritis	Vdts	Dor x V
059	Vanglossum	Vgm	Ascgm x V
117	Vanilla		Natural
053	Vascostylis	Vasco	Asctm x Rhy x V
018	Vaughnara	Vnra	B x C x Epi
020	Vejvarutara	Vja	Bro x C x Ctps
046	Viraphandhuara	Vpda	Aer x Asctm x Neof x Rhy x V
081	Vuylstekeara	Vuyl	Cda x Milt x Odm
046	Wailaiara	Wlra	Aer x Arachnis x Asctm x Rhy x V
054	Waironara	Wrna	Aerides x Ren x Rhy x V
091	Warmingia		Natural
090	Warneara	Wnra	Comp x Onc x Rdza
114	Warrea	Wra	Natural
114	Warreella		Natural
114	Warscewiczella		Natural
020	Westara	Wsta	B x Bro x C x L x Schom
018	Wilburchangara	Wbchg	Bro x C x Epi x Schom
053	Wilkinsara	Wknsra	Asctm x V x Vdps
084	Wilsonara	Wils	Cda x Odm x Onc
078	Wingfieldara	Wgfa	Asp x Brs x Odm
081	Withnerara	With	Asp x Milt x Odm x Onc
018	Wooara	Woo	B x Bro x Epi
114	Woodwardara	Wdwa	Colax x Ngda x Z



048	Xerriara	Xra	Arachnis x Asctm x Rhy
114	Xylobium	Xyl	Natural
018	Yahiroara	Yhra	B x C x Epi x L x Schom
018	Yamadara	Yam	B x C x Epi X L
054	Yapara	Yap	Phal x Rhy x V
018	Yeeara	Yra	B x Bro x C x Epi x L x Schom x Soph
046	Yeepengara	Ypga	Aerides x Phal x Rhy x V
054	Yoneoara	Ynra	Ren x Rhy x Vdps
054	Yonezawaara	Yzwr	Neof x Rhy x V
060	Ypsilopus		Natural
048	Yusofara	Ysfra	Arach x Asctm x Ren x V
116	Zeuxine		Natural
111	Zootrophion		Natural
114	Zygotatemannia	Zbm	Btmna x Z
112	Zygocaste	Zcst	Lyc x Z
114	Zygocella	Zcla	Mdcla x Z
114	Zygocolax	Zcx	Clx x Z
114	Zygodisanthus	Zdsnth	Pdsnth x Z
114	Zygolum	Zglm	Z x Zspm
114	Zygoneria	Zga	Ngda x Z
114	Zygonisia	Zns	Agn x Z
114	Zygopetalum	Z	Natural
114	Zygorhyncha	Zcha	Chdra x Z
114	Zygosepalum	Zspm	Natural

117	Zygostates		Natural
114	Zygostylis	Zsts	Otst x Z
114	Zygotorea	Zgt	Pes x Z
114	Zygowarrea	Zwr	Wra x Z

# Michiana Orchid Society Schedule of Classes

## Award—Best of Show

### *Group Exhibit*

#### A. Open Competition

1. Orchid plants in flower, arranged for effect, more than 50 square feet
2. Orchid plants in flower, arranged for effect, 50 square feet maximum
3. Orchid plants in flower, arranged for effect, 25 square feet maximum
4. Cut flowers, arranged for effect, no space limitations
5. Educational exhibits, no space limitations

#### B. Orchid Societies affiliated with the American Orchid Society

6. Orchid plants in flower, arranged for effect, more than 50 square feet
7. Orchid plants in flower, arranged for effect, 50 square feet maximum
8. Orchid plants in flower, arranged for effect, 25 square feet maximum
9. Cut flowers, arranged for effect, no space limitations

#### C. Amateur Competition

10. Orchid plants in flower, arranged for effect, more than 50 square feet
11. Orchid plants in flower, arranged for effect, 50 square feet maximum
12. Orchid plants in flower, arranged for effect, 25 square feet maximum

13. Cut flowers, arranged for effect, no space limitations
14. Orchid exhibit, with emphasis on artistic effect, using one to five plants, 25 square feet maximum

### *Award—Best of Classes 1–14*

#### **Open Competition**

##### D. Cattleya Alliance

15. Epidendrum species
16. Encyclia species
17. Epidendrum and Encyclia hybrids
18. Epidendrum and Encyclia intergenerics
19. Brassavola species, hybrids and intergenerics other than above but excluding cattleyas
20. Broughtonia species, hybrids and intergenerics other than above
21. Laelia species, hybrids and intergenerics other than above but excluding cattleya.
22. Sophronitis species, hybrids and intergenerics other than above but excluding cattleyas
- 23a. Cattleya species
23. Cattleya allied genera species other than above
24. Cattleya hybrids and intergenerics other than above, Lavender/Mauve
25. Cattleya hybrids and intergenerics other than above, White
26. Cattleya hybrids and intergenerics other than above, Semi-alba
27. Cattleya hybrids and intergenerics other than above, Yellow-Orange
28. Cattleya hybrids and intergenerics other than above, Green

29. Cattleya hybrids and intergenerics other than above, Red/Red shades
30. Cattleya hybrids and intergenerics other than above, Splashed or flared petals,  
any color
31. Allied cattleya hybrids and intergenerics other than above
32. Cattleya and allied genera species, hybrids and intergenerics, Miniature  
(Total height of mature plant 10 inches or less, excluding inflorescence)

*Award—Best of Classes 15–32*

E. Cypripedium Alliance

*Color in Paphiopedilum species and hybrids is based on the dominant flower color*

33. Paphiopedilum species, usually single flowered when mature
- 33a. Paphiopedilum species, usually multiple flowered when mature
- 33b. Paphiopedilum species, usually sequentially flowered when mature
34. Paphiopedilum hybrids. White primary
35. Paphiopedilum hybrids. Green/yellow primary
36. Paphiopedilum hybrids. Bronze/mahogany primary
37. Paphiopedilum hybrids. Red/pink primary
38. Paphiopedilum hybrids. Other colors/vinicolors primary
39. Paphiopedilum hybrids. White complex
40. Paphiopedilum hybrids. Green/yellow complex
41. Paphiopedilum hybrids. Bronze/mahogany complex
42. Paphiopedilum hybrids. Red/pink complex
43. Paphiopedilum hybrids. Other colors/vinicolors complex

**Award—Best of Classes 33a–43**

- 44a. Phragmipedium species
- 44b. Phragmipedium hybrids without besseae in the breeding line

44c. Phragmipedium hybrids with besseae in the breeding line

44d. Allied Cypripedium species, hybrids and intergenerics other than above

**Award—Best of Classes 44a–44d**

**F. Vanda and Phalaenopsis Alliance**

45. Aerangis species, hybrids and intergenerics

46. Aerides species, hybrids and intergenerics other than above

47. Angraecum species, hybrids and intergenerics other than above

48. Arachnis species, hybrids and intergenerics other than above

49. Ascocentrum, species and hybrids

50. Ascocenda, Orange/Yellow

51. Ascocenda, Red/Red purple

52. Ascocenda, other colors, other than above

53. Ascocentrum intergenerics, other than above

54. Rhyncostylis species, hybrids and intergenerics other than above

55. Renanthera species, hybrids and intergenerics other than above, but excluding

Doritis and Phalaenopsis

56. Vanda species

57. Vanda hybrids, terete and semi-terete

58. Vanda hybrids, strap leaf

59. Vanda hybrids and intergenerics other than above, but excluding Doritis and

Phalaenopsis

60. Allied Vanda genera, species, hybrids and intergenerics other than above, but

excluding Doritis and Phalaenopsis

**Award—Best of Classes 45–60**

Multiflora refers to plants that when mature are expected to have flowers with 3" maximum natural spread and multi-branched inflorescences.

61. Doritis species and hybrids
62. Doritis intergenerics, excluding Phalaenopsis
63. Phalaenopsis species
64. Phalaenopsis hybrids and Doritaenopsis, White, no markings
65. Phalaenopsis hybrids and Doritaenopsis, White with colored lip, no markings
66. Phalaenopsis hybrids and Doritaenopsis, White with markings
67. Phalaenopsis hybrids and Doritaenopsis, White multiflora
68. Phalaenopsis hybrids and Doritaenopsis, Pink no markings
69. Phalaenopsis hybrids and Doritaenopsis, Pink with markings
70. Phalaenopsis hybrids and Doritaenopsis, Pink multiflora
71. Phalaenopsis hybrids and Doritaenopsis, Yellow, no markings
72. Phalaenopsis hybrids and Doritaenopsis, Yellow with markings
73. Phalaenopsis hybrids and Doritaenopsis, Yellow multiflora
74. Phalaenopsis hybrids and Doritaenopsis, Other colors, no markings
75. Phalaenopsis hybrids and Doritaenopsis, Other colors with markings
76. Phalaenopsis hybrids and Doritaenopsis, Other colors multiflora
77. Phalaenopsis intergenerics other than above

*Award—Best of Classes 61–77*

#### G. Oncidium Alliance

78. Brassia species, hybrids and intergenerics
79. Miltonia/Miltoniopsis species
80. Miltonia/Miltoniopsis hybrids
81. Miltonia/Miltoniopsis intergenerics other than above
82. Odontoglossum species (including Osmoglossum, Otoglossum, Rossioglossum, Symphyglossum, Systeloglossum, Ticoglossum)

83. *Odontoglossum* hybrids
84. *Odontoglossum* intergenerics other than above
85. *Oncidium* species except equitants
86. *Oncidium* hybrids except equitants
87. *Oncidium* equitant species
88. *Oncidium* equitant hybrids, no markings
89. *Oncidium* equitant hybrids, with markings
90. *Oncidium* intergenerics other than above
91. Allied *oncidium* genera species, hybrids and intergenerics other than above

**Award—Best of Classes 78–91**

H. *Cymbidium* Alliance

92. *Cymbidium* species
93. *Cymbidium* hybrids, white
94. *Cymbidium* hybrids, pink
95. *Cymbidium* hybrids, yellow
96. *Cymbidium* hybrids, green
97. *Cymbidium* hybrids, other colors
102. Allied *cymbidium* genera species, hybrids and intergenerics other than above.

**Award—Best of Classes 92–102**

I. *Dendrobium*

103. *Dendrobium* species, Nobile type
104. *Dendrobium* species, *Phalaenopsis* and Antelope types
105. *Dendrobium* species, Other types
106. *Dendrobium* hybrids, Nobile type



- 107. Dendrobium hybrids, Phalaenopsis and Antelope types
- 108. Dendrobium hybrids, Nigrohirsute type
- 108a. Dendrobium hybrids, Other types
- 109. Allied Dendrobium species, hybrids and intergenerics other than above

**Award—Best of Classes 103–109**

**J. Miscellaneous Genera**

- 110. Masdevallia, Dracula, Dryadella species
- 110a. Masdevallia, Dracula, Dryadella primary hybrids and intergenerics
- 110b. Masdevallia, Dracula, Dryadella complex hybrids and intergenerics
- 111. Pleurothallis and allied genera species, hybrids and intergenerics other than  
above
- 112. Lycaste species, hybrids and intergenerics
- 113. Maxillaria species, hybrids and intergenerics other than above
- 114. Zygopetallum and allied genera species, hybrids and intergenerics other than  
above
- 115. Catasetum, Cycnoches, Mormodes and allied genera species, hybrids and  
intergenerics
- 116. Jewel orchids in flower
- 117. Orchid species, hybrids and intergenerics not covered elsewhere
- 118. Miniature species, hybrids and intergenerics, all classes except Cattleya and  
allied genera as covered in Class 32. Miniature is defined as naturally  
occurring diminutive plants in flower not exceeding 6 inches in height  
excluding inflorescence.

**Award—Best of Classes 110–118**

- 119. Seedling flowering for the first time (classes 15-118)

**Award—Class 119**

- 120. Specimen plants

*Award—Class 120*

**K. Art Exhibits—Orchid Related**

All art work, classes 121 through 124, must have been executed by the exhibitor

- 121. Paintings, etchings, etc.

- 122. Photographs

- 123. Ceramics, China, Sculpture, Jewelry and Metal Art

- 124. Needlepoint, Tapestry, Needlework, and Art Exhibits other than above

- 125. Collectibles—Any type orchid-related art work

**Award—Classes 121–125**

**L. Orchids in Use**

- 126. Corsages—Orchids predominating

- 127. Orchids for personal adornment other than corsages

- 128. Arrangements

*Award—Classes 126–128*

## **Michiana Orchid Society Show Information**

### **EXHIBITION GUIDELINES**

All exhibitors are expected to familiarize themselves with the show schedule and exhibition guidelines.

1. Each exhibitor agrees upon entry to abide by the rules and regulations of the show. All questions regarding the interpretation of these rules shall be referred to the Show Co-Chairs for a decision.
2. There are no fees to the exhibitor for entries or assistance in setting up exhibits.
3. In order to sell orchid plants and related materials at the show, a vendor must place an exhibit of at least 25 square feet in the show. It must conform to the quality of the show as interpreted by the Show Committee.
4. Foliage plants, moss, etc., may complement exhibits, but no artificial or dyed moss or foliage of any kind will be permitted with the exception of artificial grass used as a floor covering. Plants in flower or cut flowers other than orchids will not be permitted in the exhibit. No dyed flowers will be permitted.
5. Neither the host society nor show sponsor is responsible for loss or damage to any plants, blooms, corsages, containers or other property of exhibitors. However, every precaution will be exercised for their safety.
6. Any lighting used for effect is the responsibility of the exhibitor. It must be coordinated with the Staging Committee.
7. All plants or cut flowers exhibited must be properly labeled without identification of the owner until judged.

8. No cut flowers will be permitted in flowering plant exhibits, and no flowering plants will be permitted in cut flower exhibits.

## ENTRY OF PLANTS AND EXHIBITS

1. Inspect your plants carefully before you decide to put them in a show; pests and diseases have no place in a show. Too many exhibitors have brought healthy plants to a show and taken home a host of afflictions.

2. It saves considerable time if you obtain entry tags ahead of the time of the show and make them available to the entry clerk upon arrival. Upon completion by the entry clerk, the tag may be placed on plants as the exhibit is set up. The entry clerk will check for correct naming of plants and make corrections on the entry tag. Exhibitors are expected to make appropriate changes or corrections to their display tags.

3. A separate entry tag must be made for each plant, cut flower, or exhibit. Print legibly on each entry form (tag). If the clerks can't read it, they won't be able to find it.

4. How to do it—Entry Procedure:

—If you have not followed the procedure as recommended in #2 above, obtain a sufficient supply of ENTRY FORMS from the entry desk, sometimes called the entry registration desk.

—Also obtain an EXHIBIT and EXHIBITOR NUMBER at the desk. You are the exhibitor, and the show officials identify you by the number which they give you at this time. The exhibit number is assigned to that individual, individuals, or group who are responsible for the exhibit. These numbers must appear on each entry form. They assist the clerks and judges in locating plants and exhibits while judging.

—On each entry form, indicate the CLASS NUMBER for each entry. Check the SHOW SCHEDULE for the correct class. It is your responsibility to get your entries in the correct class! Incorrectly entered entries may be disqualified by the judges. *Lowell Jacks' cross-reference list is available at the entry desk.*

—Under name, indicate the name of the plant or flower followed by the word, SPECIES, in the space for the cross if such is the case. If the entry is a hybrid, indicate the parentage. Check *Sander's List of Orchid Hybrids* or Wildcatt database if you are not sure. These are both available at the entry desk. If the entry is an exhibit, write the square feet of the exhibit.

—DO NOT WRITE IN THE AWARDS SECTION.

—Return the completed entry tags to the entry desk in numerical order by CLASS NUMBER. Each entry will receive a TAG NUMBER. When completed, the tags will be separated from the carbon copy, which you then place on the entry. Please correct any exhibition tags also to match the entry tag. The original entry tag stays at the entry desk to be used by the judging teams.

—A word to the wise: Maybe NOT every plant you use in your exhibit is worthy of a ribbon; read up on ribbon judging and make some entry decisions for yourself. For AOS judging, every plant, whether entered for ribbon judging or not, will be considered for AOS awards.

—If your entry, on this blooming, has been in an AOS sanctioned activity previously, it is not eligible for AOS judging again THIS blooming; so write on the tag “NOT FOR AOS JUDGING.”

## CLASSIFICATION

1. Entries not in accordance with the schedule will be disqualified, and the Show Committee reserves the right to remove all inferior exhibits at any time.
2. In general, plants should be entered in the first applicable class.
3. An exhibitor may enter no more than three (3) plants or cut flowers in any one class. Exceptions are classes 117 through 120.
4. A meristem plant or cut flower may not be entered as a seedling blooming for the first time.
5. For purposes of this schedule, the word “hybrid” means a cross made with the genus listed, unless preceded by the word “intergeneric,” in which case, two or more different genera are used in the cross.

6. The same exhibit cannot be entered in more than one class. Any individual plant or cut flower cannot be entered in more than one class with the exceptions of classes #119 and #120, but may be part of an exhibit.

7. For the purpose of this show, an amateur is defined as any person who has not sold more than a total of two hundred (200) plants and/or flowers in the last year.

8. In general, blush colors, two-tone flowers and pastel colors should be entered in the “other colors” classifications.

## JUDGING

1. An American Orchid Society (AOS) sanctioned show must comply with the current rules of the *American Orchid Society Handbook on Judging and exhibition* and any interim rules issued by the AOS Committee on Awards. There will be three or more judges accredited by the American Orchid Society. The decisions of these judges will be final. The American Orchid Society system of judging will be used in all events. All judges and clerks are expected to familiarize themselves with the show rules. All plants and flowers will be considered for recognition based on present quality, without regard to previous awards. To maintain highly competitive standards, no trophies or other recognition will be awarded if, in the judges’ opinion, the flower, plant or exhibit does not warrant such recognition. Judges may subdivide or add additional classes at their discretion.

2. In shows approved for AOS judging: All flowers, whether entered for ribbon judging or not, will be considered for AOS awards unless otherwise marked by the exhibitor. If the flowers have previously been exhibited at an AOS function, they are considered to have been screened and therefore are not eligible for further consideration. They should be marked “Not for AOS judging.” This will not disqualify the flower from consideration in the proper ribbon or trophy class. Submission of plants or cut flowers for judging shall obligate the exhibitor to accept any award granted and to pay any fees connected with such an award except where he has clearly indicated before the judging that this entry is not to be AOS judged.

3. First, second and third place ribbons may be awarded to the best three (3) entries in each class other than a trophy class. An honorable mention ribbon award may be offered when, in the opinion of the judges, an additional recognition is merited. All plants and cut flowers must be correctly entered in the appropriate class, or reclassified by a judge, to be eligible for ribbon judging. Exhibitors will enter their plants using standard Mid-America show tags. After completing the registration of the material, the carbon copy goes on the plant while the

original remains at the entry desk. Entry tags should show plant parentage, clonal name, if assigned, and previous awards to the clone (see section on entry tags). Each plant should be entered into ONE class only, with the above exceptions. An official copy of the correct entry classes to enter your plants is available at the entry desk. Where a plant could conceivably fit into more than one class, the exhibitor shall enter it into the first applicable class listed. A mericlone is considered a vegetative division of the original plant and must be treated as such. If a plant is a mericlone, it should be so designated and the clonal name given. *Species classes will include natural hybrids.* Criteria employed in ribbon class definitions refer to characteristics prevailing for mature plants grown according to normal horticultural practice

4. Improperly entered plants/exhibits may be either reclassified or disqualified at the discretion of the judges at this show.

5. All trophies are open to all exhibitors in this show if the exhibit is entered properly and show rules are complied with, unless otherwise specified in this schedule.

6. In order to be eligible for any special trophies, plants and exhibits must be entered for ribbon judging. No separate entry is required.

7. Each exhibit may be entered in ONE CLASS ONLY. All exhibits must be entered on standard Mid-America entry tags. The copy goes on the exhibit and the original to the entry registration desk. All exhibits are eligible for the AOS Show Trophy and will be judged in accordance with the criteria in the current AOS Handbook on Judging and Exhibition.

## **An Orchid Glossary**

**Aerial root**—Any root produced above the growing medium.

**Anther**—The part of the stamen containing the pollen; the end of the column.

**Backbulb**—An old pseudobulb behind the part of a sympodial orchid that is actively growing. Although there may be no leaves the presence of undamaged "eyes" is a sign that growth is possible.

**Bifoliate**—Having two leaves.

**Bigeneric**—A hybrid involving two different genera in the parentage.

**Callus**—A hard thickening or protruberence.

**Chlorophyll**—The green pigment in plants which is essential to the production of food.

**Cane**—An elongated pseudobulb, usually used when describing Dendrobiums.

**Clone**—An individual plant and all of its vegetative divisions.

**Column**—The organ of an orchid flower that is made up of both the male (anther) and female (style) reproductive parts.

**Crest**—A toothed, fringed, hairy adornment, or callus growth on the lip of some orchid flowers.

**Crock**—Small pieces of broken earthenware or flower pots, placed in the bottom of a pot when repotting to aid in drainage.

**Cross**—The mating of two different orchid clones, whether varieties, species, hybrids.

**Crown**—The point where leaves grow from on monopodial orchids. Usually the V shaped area in the center of the plant.

**Cultivar**—An individual plant and its vegetative propagations in cultivation; a horticultural variety.

**Cyme**—A determinate inflorescence where the terminal flower is older than the subtending lateral flowers.

**Dorsal**—Refers to the top side of a flower.

**Epiphyte, epiphytic**—A plant which naturally grows upon another plant but does not derive any nourishment from it. Many of the orchids in cultivation are epiphytic.

**Eye**—The bud of a sympodial orchid that will eventually develop into a new lead.



Foliar spray—Many minor nutrients and trace elements beneficial to growth are best absorbed through the stomata of an orchids leaves when mixed with water and sprayed on the plant.

Gene—The units in the chromosomes by which hereditary characteristics are transmitted.

Genus—(pl. genera) A natural grouping of closely related species.

Growth—An individual pseudobulb.

Grex—A flock or group, applied collectively to the progeny of a given cross.

Habit—The general appearance of a plant (whether it's erect, pendant, climbing, weedy, etc )

Habitat—The type of place in which a plant normally grows.

Hapuu—A potting media. Hawaiian tree fern fiber.

Hybrid—The offspring of a cross between species or hybrids.

Inflorescence—The flowering portion of a plant.

Intergeneric hybrid—A hybrid between members of two or more genera.

Keiki—A Hawaiian word referring to a baby plant produced asexually by an orchid plant, usually used when referring to Dendrobiums or Vandaceous orchids.

Lateral—Referring to the side of a flower.

Lead—An immature vegetative growth on a sympodial orchid that will develop into flower-producing structure.

Leaf span—The size of a plant, measured from leaf tip to center of crown to other leaf tip. Used on phalaenopsis, paphiopedilums and other monopodial orchids.

Lip—A modified petal of the orchid flower specialized to aid in pollination and different than the other petals.

Lithophyte—An orchid that grows on rocks

Medium—The material in which an orchid is container-grown, it may be organic such as fir bark or inorganic such as lava rock.

Mericlone—A plant derived from tissue culture that is identical to its parent.

Monfoliate—Having 1 leaf. Often used in reference to cattleyas.

Monopodial—Orchids which grow upward from a single stem producing leaves and flowers along that stem.

Node—A joint on a stem or pseudobulb from which a leaf or growth originates.

**Novelty**—A recent introduction, A seedling or a sport, possessing unexpected but desirable qualities.

**Osmunda**—A potting media. Chopped roots of Osmunda fern.

**Ovary**—The part of the flower, which develops into the fruit.

**Panicle**—An inflorescence with a main stem and branches, the flowers on the lower branches open earlier than the upper ones.

**Perlite**—A potting media. Expanded volcanic rock.

**Petal**—One of the three inner segments, which aren't modified to form a lip.

**Photosynthesis**—The process a plant uses to produce carbohydrates and sugar from water and carbon dioxide in the air using chlorophyll-containing cells exposed to light.

**Pistil**—The ovule (seed) bearing organ of a flower (including, when complete, the ovary, style, and stigma).

**Pollen**—A general term referring to the haploid (n) pollen grains which are the immature male gametophytes in the seed reproductive cycle.

**Pollinium**—(pl. = pollinia) The coherent (waxy) mass of pollen grains found in the anther.

**Polyploid**—A term applied to a plant that possesses one or more extra sets of chromosomes beyond the normal number for that plant.

**Pouch**—Replaces the lip in Paphiopedilum alliance plants, it's actually two petals that have fused.

**Pseudobulb**—A thickened portion of the stem of many orchids functioning as a water and food storage device.

**Raceme**—An unbranched inflorescence of stalked flowers.

**Rhizome**—A root-bearing stem of sympodial orchids that progressively sends up leafy shoots.

**Saprophyte**—A plant lacking green color and depending on decaying material for its nutrition.

**Scape**—An unbranched inflorescence with one flower. An inflorescence that arises from the base of the pseudobulb.

**Sepal**—One of the three outer segments of the flower.

**Sheath**—A modified leaf that encloses an emerging inflorescence or leaf.

**Species**—A kind of plant that is distinct from other plants.

Spike—An unbranched inflorescence of unstalked flowers.

Staminodium—A modified, sterile, stamen.

Stigma—The area of the carpel receptive to pollen.

Stolon—A branch that grows horizontally above the medium and produces roots and shoots at the nodes.

Stomata—The breathing pores on the surface of a plant's leaves

Sympodial—Orchids that grow laterally and produce leafy growths along a rhizome

Terrestrial—Growing on the ground and supported by soil.

Unifoliate—Having one leaf.

Velamen—The thick sponge-like covering of the roots of epiphytic orchids which helps prevent water loss and aids in absorption.

Virus—A type of infectious agent, much smaller than common microorganisms, several forms of which affect certain kinds of orchids.

# Orchid Collections in Botanical Gardens, United States and Canada

## Anna Scripps Conservatory

Detroit (Belle Isle), MI

313/852-4064

<http://www.bibsociety.org>

50 genera; 301 species; 5600+ plants

Notes: 99% of this collection was amassed from donations. The

collections are not recorded in a database of yet. The Scripps is a beautiful Victorian conservatory and worth seeing on its own merits.

## Atlanta Botanic Garden

Atlanta, GA

404/876-5859

<http://www.atlantabotanicalgarden.org>

Notes: This collection is being documented. There is a heavy focus on Andean plants especially those of lower mountain regions, with some higher elevation plants. There is also a good representation of orchids from Madagascar. This garden is one to watch for orchids.

## Birmingham Botanical Garden

Birmingham, AL

205/414-3900

<http://www.bbgardens.org>

43 genera; 78 species; 391 taxa

## Brooklyn Botanic Garden

Brooklyn, NY

718/623-7200

<http://www.bbg.org>

175 genera; 328 species; 1005 taxa; 10% ver

## Cheekwood Botanical Gardens and Fine Arts Center

Nashville, TN

615/353-2148

<http://www.cheekwood.org>

55 genera; 100 species; 414 taxa

Notes: Two small greenhouses are devoted to orchids (a warm and cool house). A third greenhouse displays Central American cloud forest species, with orchids as a component. There are a few native and hardy species on display outdoors as well.

## Como Park Conservatory

St. Paul, MN

651/487-8201

80 genera; 531 species; 587 taxa

Notes: Species of tropical Americas.

## Denver Botanic Garden

Denver, CO

303/331-4000

<http://www.botanicgardens.org>

180 genera; 686 species; 963 taxa

Notes: Collection contains many plants collected from the wild in the  
early 1970s. Limited public display.

#### Des Moines Botanical Center

Des Moines, IA

515/323-8900

<http://www.desmoinesbotanicalcenter.org>

64 genera; 133 species; 159 taxa

#### Fairchild Tropical Garden

Miami, FL

305/667-1651

<http://fairchildgarden.org>

77 genera; 380 species; 630 taxa

Notes: Both indoor and outdoor displays

#### Filoli Gardens

Woodside, CA

650/364-8300

<http://www.filoli.org>

2 genera; 16 taxa

#### Flamingo Gardens

Davie/Ft. Lauderdale, FL

954/473-2955

<http://www.Flamingogardens.org>

92 genera; 176 species; 458 taxa; 300 ver

#### Foellinger-Frieman Botanical Conservatory

Fort Wayne, IN

260/427-6440

<http://www.botanicalconservatory.org>

36 genera; 55 species; 71 taxa; 134 ver

## Ganna Walska Lotusland

Santa Barbara, CA

805/969-3767

<http://www.lotusland.org>

7 genera; 10 taxa

Notes: A small collection slowly being added to. The plants are grown outdoors and hardy to the Mediterranean climate.

## Garfield Park Botanical Conservatory

Indianapolis, IN

317/327-7184

17 genera; 22 species; 75 taxa

Notes: Large number of Phalaenopsis hybrids

## Golden Gate Park Conservatory

San Francisco, CA

415/666-7077

48 genera; 1200 species; 2400 taxa

Notes: High-altitude species only. Collection contains some species not often seen.

Harry P. Leu Gardens

Orlando FL

407/246-2620

<http://www.leugardens.org>

41 genera; 88 species; 2000 taxa; 1330 ver

Hawaii Tropical Botanical Garden

Papaikou, HI

808/964-5233

<http://www.hawaiigarden.com>

Hillwood Museum & Gardens

Washington DC

202/686-8500

<http://>

Notes: Not a well-documented collection but quite large. Mostly showy plants used by Post for cut flowers or display of blooms in the mansion

## Honolulu Botanical Gardens

Honolulu, HI

808/522-7060

<http://www.co.honolulu.hi.us/parks/hbg>

85 genera; 189 species; 1526 taxa

Notes: The largest public collection in the state of Hawaii.

## Jardin Botanique de Montreal

Montreal, Quebec

514/872-1438

<http://www.ville.montreal.qc.ca/jardin/jardin.htm>

279 genera; 1122 species; 1892 taxa; 300 ver



Notes: Paphiopedilum, Phalaenopsis, Dendrobium, Bulbophyllum,  
Cattleya

## Krohn Conservatory

Cincinnati, OH

513/421-5707

In the process of being cataloged

## Lincoln Park Conservatory

Chicago, IL

312/742-7736

25 genera; 75 species

Notes: This collection contains many large specimens; especially

Coelogyne, Vanda, and species Cattleya.

## Longwood Gardens

Kennett Square, PA

610/388-1000

<http://www.longwoodgardens.org>

230 genera; 725 species; 3930 taxa

Notes: Many old clones and species remain from the original collection

(1921-1954). Founders Pierre and Alice du Pont were among the

100 original founding members of AOS.

## Los Angeles County Botanic Garden

Arcadia, CA

626/821-3234

<http://www.aabga.org/memberpages/losangeles>

207 genera; 1550 species; 3000 taxa

Notes: Paphiopedilum, Cymbidium, Cattleya, Phalaenopsis, Dendrobium

## The Marie Selby Botanical Gardens

Sarasota, FL

941/366-5731

<http://www.selby.org>

216 genera; 1334 species; 1614 taxa; 50% ver

## Missouri Botanical Garden

St. Louis, MO

314/577-5111

<http://www.mobot.org>

320 genera; 1527 species; 3165 taxa; 8635 plants; 65000 in herbarium

Notes: Acquisitions date back to the late 1800s. This is one of the largest

collections in the United States. Many of these are rare or endangered species. The Annual Orchid Show is held from mid- January to March with 700 to 800 orchids on display.

## Mount Holyoke College Botanic Garden

South Hadley, MA

413/538-2116

<http://www.mtholyoke.edu/offices/botan>

132 genera; 460 species; 480 taxa; 95% ver

Notes: Species orchids and their cultivars.

## Muttart Conservatory

Edmonton, Alberta

780/496-8740

65 genera; 1800 species; 3200 hybrids

## Myriad Botanical Gardens

Oklahoma City, OK

405/297-3995

29 genera; 200 species

## New England Wildflower Society: Garden in the Woods

Framingham, MA

508/877-7630

<http://www.newfs.org>

11 genera; 17 species; 21 taxa

Notes: Native orchids in their habitat.

## New Orleans Botanical Garden

New Orleans, LA

504/483-9386

45 genera; 225 species

## The New York Botanical Garden

Bronx, NY

718/817-8700

<http://www.nybg.org>

195 genera; 955 species; 1805 taxa

Notes: Diverse collection with emphasis on New World tropical species

and their cultivars. Many unusual genera and species.

#### Oklahoma Botanical Garden & Arboretum

Stillwater, OK

405/744-5414

<http://home.okstate.edu/okstate/dasnr/hort/hortlahome.nsf/toc/obga>

10 genera; 21 species; 21 taxa; 21 ver

#### Phipps Conservatory

Pittsburgh, PA

412/622-6915

<http://www.phipps.conservatory.org>

95 genera; 200 species; 550 taxa (mini=30 genera; 40 species; 55 taxa)

#### Planting Fields Arboretum State Historic Park

Oyster Bay, NY

516/922-9200

<http://www.plantingfields.com>

90 genera; 170 species; 1150 taxa

Notes: Inventory records and culture information are available for review

by the visitors.

#### Rancho Santa Ana Botanic Garden

Claremont, CA

909/625-8767

<http://www.rsabg.org>

6 genera; 7 species

Notes: Limited to California native orchids

## Royal Botanical Gardens

Hamilton, Ontario

905/527-1158

<http://www.rbg.ca>

720 taxa

## San Antonio Botanical Gardens

San Antonio, TX

210/207-3255

<http://www.sabot.org>

78 genera; 143 species; 411 taxa

## San Diego Zoo

San Diego, CA

619/231-1515

<http://www.sandiegozoo.org>

148 genera; 434 species; 781 taxa

Notes: Emphasis is on the species that compliment the animal collections,  
particularly the Chinese species orchids.

## United States Botanical Garden

Washington DC

<http://www.aoc.gov>

193 genera; 862 species; 1777 taxa; 5170 plants

Notes: The collection is still being inventoried, currently orchids  
represent 1/3 of the total holdings. As a Cited repository many  
specimens are not commonly seen. The conservatory was just

reopened after extensive renovations, including a permanent orchid display room.

#### University of California Botanical Garden

Berkeley, CA

510/642-0849

<http://www.mip.berkeley.edu/garden>

171 genera; 591 species; 604 taxa

#### University of California Irvine Arboretum

Irvine, CA

714/824-5833

<http://darwin.bio.uci.edu/arboretum>

96 taxa

Notes: Collection is primarily if not all Mini-Cymbidiums

#### University of Michigan Matthaei Botanical Garden

Ann Arbor, MI

734/998-7061

<http://www.sa.umich.edu/mbg>

71 genera; 165 species

#### University of North Carolina at Charlotte Botanical Garden

Charlotte, NC

704/547-4055

50 genera; 150 species; 800 taxa; 700 ver

Notes: Many large and rare specimens

#### W.W. Seymour Botanical Conservatory

Tacoma, Washington

253/591-5330

24 genera; 41 species; 60 taxa

Notes: Collection is in the process of being documented.

Waimea Arboretum and Botanical Garden

Haleiwa, HI

808/638-8655

27 genera; 49 species; 63 taxa

Notes: The Malaysian Floral Region Collection contains many wild-collected specimens.

Wheeler Orchid Collection & Species Bank (Ball State University)

Muncie, IN

765/285-8839

<http://web.bsu.edu/fseec/environment/WOSCB.htm>

120 genera; 900 species; 300 taxa

Notes: A CITES rescue center

The "Orchids Handbook" also offers a comprehensive and well-illustrated plant directory of 40 popular varieties, covering all the major orchid families and their characteristics, with advice on choosing the plant that is right for your climate conditions. Additionally this useful handbook covers pests and diseases and everything you need to know to enter your orchids in competition. He lectures widely and is an accredited judge in South Africa and a senior judge with the American Orchid Society. Orchid. from Botanicals by Handbook. / Digital Track. Streaming + Download. Includes unlimited streaming via the free Bandcamp app, plus high-quality download in MP3, FLAC and more. Purchasable with gift card. Buy Digital Track. £1 GBP or more. If you want Handbook at your event, or for him to do a cheeky remix for you, hit him up at [jakebrownhandbook@gmail.com](mailto:jakebrownhandbook@gmail.com) more more. SoundCloud. Recommendations. discography. Sunshine feat. Supreme Sol. Apr 2020. Handbook on orchid culture. Item Preview. remove-circle. Share or Embed This Item. EMBED. texts. Handbook on orchid culture. by. American Orchid Society. Publication date. 1986. Topics. Orchid culture, Orchids. Publisher. Cambridge, Mass.