### **HOW ORCHIDS GOT THEIR NAMES**

**CAROL SIEGEL** 

"If I could remember the names... I'd be a botanist."

Enrico Fermi

ORE THAN 120 MILLION BABIES will be born on earth this year. Each of them will be given a special name, the mark of his personal identity and unique place in society. Naming is so important that Genesis recounts that the first gift that the Almighty gave Adam was the right to name things, "... and whatsoever Adam called every living creature that was the name thereof."

To name a baby, the Khasi people in Africa pour a gourd of rice liquor into rice meal while reading a list of names. The child is given the name that is recited during the pouring of the drop of liquor that takes the longest to leave the gourd. Then, the feet of the baby are smeared with the rice meal, and the guests eat the rice paste. Finally, the bloody placenta is swung over the baby three times, buried outside, and the child is named.

Sometimes it seems that orchids, too, were named with flying placentas and a smearing of rice paste. How in the world did they decide on those multisyllabic, unpronounceable nightmares? Why did they choose dead languages and incomprehensible words? Most of all, why did they spell them in such weird ways that even smart people make mistakes all the time? This is the story of how orchids got their very strange names and what they all mean (and it doesn't appear that placenta was involved...)

## Why Did They Use Latin and Ancient Greek Names?

Although today Latin and Ancient Greek are considered "dead" languages, from the Middle Ages to the 19th century, Latin was the common language of scientists and of the educated. All the scholars, patrons, noblemen, physicians, and writers communicated in the common language of Latin. Books, and especially scientific books, were written in Latin and then sometimes translated into the vernacular. A French scientist could understand a book written by a Spaniard or an Italian. It was the age of nationalism, and countries jealously guarded the position of their languages and their cultures. Latin, being "dead," did not arouse competition or jealousy and was acceptable to all. As new plants flooded into Europe from the New World, East Asia and the tropics in the 19th century, it became urgent to identify plants and to name them. As they passed from foreign lands to sea captains and merchants, from explorers to nurserymen, from auctions to noblemen, plants often lost their common names and local identities. They needed a system of naming that was universally understood, and Latin was the language already

in place for that job.

Ancient Greek was also used in naming. Romans had already borrowed from the Greeks, respecting and admiring their intellect and creativity. Names derived from the Greek were often given Latin suffixes and adjusted to have more Latin spelling. For example, the Greek Bulbophyllon was modified to Bulbophyllum because there is no "on" ending in Latin, only "um." The genus Aerangis was taken from the Greek "angos," transformed into a more Latin "angis," and combined with the Greek "aer" meaning "air" to make the Latinized Aerangis, "air vessel." Some species do have Greek endings like Cycnoches pentadactylon and Dendrobium stratiotes. Orchid names and all botanical and zoological names were a mixture of Latin and Greek. By general agreement, we call the scientific names "the Latin names," even when they are a mixture of Greek and Latin. We are familiar with many Latin and Greek words since they are the basis of so many English words. We know instinctively, for example, that Ascocentrum curvifolium will have curved leaves and that Polystachya inconspicua will have inconspicuous flowers. Latin and Greek were the natural choice.

The majority of genera names are Latinized Greek (like "Epidendrum"), while only 25% of species names are. Of 1250 genus names studied, Greek was used as a basis for 68% while Latin was used as the basis for only 6%. On the other hand, Latin, not Greek, was overwhelmingly the preferred choice for species epithets.

The largest group of generic names consists of two Greek words combined and Latinized. They frequently describe some notable morphological feature such as the shape of the leaves, flowers, stems, or color such as *Grammatophyllum* from the Greek words *gramma* meaning "letter" and *phyllon* meaning "leaf" for the dark markings on the leaf. Species are often formed from two words, too, like *Grammatophyllum stapeliiflorum*, from two words that mean "like a Stapelia flower."

A few names, less than one percent, came from a native language like Japanese, Hindi, and Malayan. *Vanda*, for example, is an Indian word, *Vanilla* is from Spanish, and *Angraecum* is from the Malayan language. Foreignderived words were often Latinized; *Angraecum* was originally *anggurek* but was Latinized with the Latin suffix "um." Some names came from a local language but were not changed to accommodate Latin grammar like *Mormodes cozticochitl* which means "yellow-flowering" in Nahautl, the Mexican Aztec language or *Mormodes tezontle* which refers to the porous volcanic stone where the orchid often grows in the same language. Similarly, the orchid *Dracula vlad-tepes* was derived from the Romanian language for Vlad III (Dracula) without change.

## Why Not Use the Common Names for Orchids?

People in all countries have their own common, folk names for orchids. They are often names that tell of the plant's medicinal value or physical characteristics. Why didn't they just use the easy-to-say and easy-to-remember common name? The problem is that one plant may have many different names in different counties and countries, and the same name may refer to several different plants in different places. Anna Pavord, in her book on names, relates that in 1892, Nathanial Colgan of Dublin tried to pin down the exact identity of the plant they called "shamrock." He asked patriotic Irishmen from 20 different counties in Ireland to send shamrocks, and he was flooded with plants. Some sent white clover; some sent red; some sent lesser trefoil; some sent spotted medick. Nobody sent wood sorrel, which in England is called "shamrock." There was need for some standardization to make sense of plant names. A flower like marsh marigold (Caltha palustris) had 60 common names in France, another 80 in Britain and at least 140 in Germany, Austria, and Switzerland.

With orchids, the situation was just as bad. Hubert Mayr, in his exhaustive and excellent Orchid Names and Their Meaning, notes that the small European mountain orchid Gymnadenia nigra had dozens of different common names across the world. In Germany, it had the following vernacular names—Blutblümlein, Blutrösi, Bluttröpfl, Brändle, Bränderli, Bräutli, Braunelle, Bubenkrautl, Chamblümli, Schokoladeblümli, Kohlröschen, Mohrenköpfl, and Vaniulleblümli, to mention a few. There were also different vernacular names in French, Italian, and some Slavic languages. Having a unique name in a standard language was a real advantage if the orchid grew in more than one country and had different names in different languages. The function of a name is to distinguish it from other things that look similar and to recognize it as a genus or species of its own.

#### A Swedish Gonorrhea Doctor Gives Orchids Two Names

Scientists had been trying to figure out how to name plants for millennia. The man who, literally, wrote the book on plant classification was Pedanius Dioscorides (circa 40-90 AD). He was a Greek physician, botanist, and author of *De Materia Medica*, a five-volume encyclopedia about herbal medicine. For 1500 years, his book never left circulation and was available in Latin, Greek and Arabic. Many physicians at the time were also botanists because so many medicines came from plants. Even today, one-third of all medicines are derived from plant material. Dioscorides believed in the *Doctrine of Signatures*, which stated that the Almighty put a stamp on every plant that indicated its use to mankind so that if something looked like a body part, it was good for curing that body part. Because of the resemblance of

paired orchid tubers to testicles, for example, it would be good for curing diseases like impotence, infertility or venereal disease, according to Dioscorides. He classified plants according to their medicinal value to man. *The Doctrine of Signatures* is still believed to be true by some peasant populations around the world.

Many botanists tried to devise a more modern classification system. John Ray (1627-1705), wrote an important book *Methodus Plantarum* which described the species as the ultimate taxonomic unit and used the terms "monocotyledon" and "dicotyledon" for the first time. His master work, *Historia Plantarum*, grouped 18,000 plants on the basis of one major characteristic like color, flower structure, or medicinal use.

Anna Pavord notes that by the 18th century, plant names had become incredibly long, descriptive and unwieldy. A hoary plantain with ovate lanceolate leaves that were softly hairy with a cylindrical head and a smooth stem was actually called "Plantagofoliisovato-lanceolatispubescentibusspicacylindica, scapotereti!" Something needed to be done to make names easier to remember and not as descriptive.

It was Carl Linnaeus (1707-1778), a Swedish botanist and physician (who specialized in gonorrhea), who initiated a system that resulted in the plant being known all over the world as *Plantago media*. Linnaeus was not the most modest of men. He called his book, *Species Plantarum*, published in 1753, "the greatest achievement in the realm of science." A Professor of Medicine at the University of Uppsala, he had the supreme confidence to call his students his "apostles." He was vain enough to think he could prescribe to all what names should be used. He was fortunate to publish the right book at the right time. As Pavord proclaims, he, "with the ruthless efficiency of a computer program, imposed brisk two-module name tags on nearly 6000 plants." All told, in his lifetime, he named 12,000 plants.

His was the binomial system of nomenclature using two names for plants which was widely accepted. There had been a glory lily that was brought from the tropics to Europe. It was called *Methonica* to one nursery, *Lilium zeylanicum superbum* to another, and *Mondoni* to a third. Linnaeus declared that it should be called *Gloriosa superba*, and miraculously everyone agreed. His system was simple, mirroring the names that people in Europe are given. The family name, our last name, was the genus. Our Christian or first name was the species. Because of Latin grammatical conventions, the last name or genus was put first and the first name or species was put second. In Pakistan today, it is the convention to put the last name first, just as in the binomial system of nomenclature.

Linnaeus was not the first to use this system. The botanist Theophrastus, student of Aristotle in ancient Greece, used a similar system to distinguish different types of poppies as *mekon e melaina, mekon e keratitis*, and *mekon e rhoias*. Otto Brunfels and Leonhart Fuchs, the German fathers of botany writing in the 1500s, both

randomly used two-part names from time to time. Linnaeus adopted 60 of the names Brunfels had published and 80 of those used by Fuchs. Botanists Andrea Cesalpino and Gaspard Bauhin also used the surname/ Christian name system for plants. Linnaeus realized this system had the advantage of showing which group a plant belonged to and pinpointing its specific place in the group.

Linnaeus gave the gift of standardization to botany and zoology, using a universal language with universal rules. Amazingly, with just the right timing, his system was universally adopted and is still used today. He standardized plant names, abolished synonyms, and introduced the concept that the earliest published name is the preferred one.

Linnaeus determined his categories of genus and species solely on the basis of floral parts—class was determined by stamens and order by pistils. This method placed very different plants in similar groupings, and taxonomists eventually abandoned the floral groupings in favor of methods proposed at different times by John Ray (1627-1705), Bernard de Jussieu (1699-1777), Augustin Pyramus de Candolle (1778-1841), Antoine L. de Jussieu (1748-1836), and others. Classification was set up by examining the entire plant.

After much competition among nations, since 1867, the names that plants bear have been regulated by the International Code of Botanical Nomenclature. Today, at the Royal Botanical Gardens at Kew, Professor Mark Chase is the head of the Molecular Systematics Section which analyzes the DNA of plants and works out an evolutionary tree of life. They determined that the morphological approach to naming was sometimes incorrect and that the lotus should not be lumped with the water lily which it seems to resemble. Suddenly, orchid names we are familiar with like *Cattleya* (now *Guarianthe*) *skinneri* or *Sophronitis* (now *Cattleya*) *coccinea* are catapulted into new, sometimes unfamiliar, genera on the basis of DNA.

With all the changes in names, sometimes the neophyte (and experienced) orchid lover can be confused and exasperated. Hubert Mayr gives comforting words when he proclaims:

So do not take it too seriously! As long as you do not intend to write scientific articles, the correct naming is not so important. As long as you and your friends know what you are talking about..., everything is okay.

#### Who Gets to Name the New Orchid

When a new genus or species is discovered, the first to describe the orchid gets to name it; this is not necessarily the man or woman who found or collected it. The description and name must be published in a reputable journal, and a specimen must be deposited in an herbarium (plant archive) to serve as the type or model for this particular orchid. The genus name is capitalized, the species name is not, and both are printed in ital-

ics. In the past, famous taxonomists like John Lindley (1799-1865), Carl Ludwig Blume (1796-1862), Robert Brown (1772-1858), and Gustave Reichenbach (1823-1889) named many orchids.

# The Meaning of Genera and Species Names

Mayr notes that orchid names usually express one of these six things:

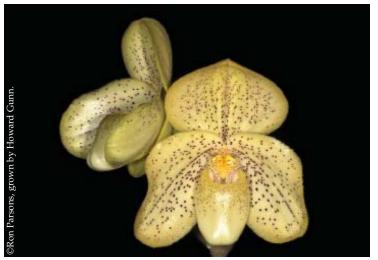
- 1. A peculiarity of the plant
- 2. A statement about the habitat
- 3. A statement about the blooming time
- 4. A reference to a person connected to this or all orchids
- 5. A reference to a historic person
- 6. A reference to a mythic Roman or Greek figure or sometimes from other areas.

Some names are even completely arbitrary and whimsical like the genus *Aa*, named to always be the first. There are anagrams like *Sedirea* which is just *Aerides* spelled backwards or *Nidema* which is just a rearranged *Dinema*. The International Code of Botanical Nomenclature requires very little beyond Latinization and states, "The name of a genus... may be taken from any source whatever and may even be composed in an absolutely arbitrary manner."

Because an orchid will have two names, one for the genus and one for the species, there are two opportunities for meaning in every name. Sometimes, if the orchid genus and species both are named for individuals, like Cattleya mossiae, you get no information about the peculiarities of the plant itself. You do get information about two people associated with the flower, William Cattley who collected cattleyas and Mrs. Moss who bloomed the first of this species in cultivation. In the case of *Laelia* majalis (now Laelia speciosa), the genus is named for a Roman vestal virgin which gives us little information, and the species tells us it blooms in May. In the orchid Holcoglossum quasipinifolium, the genus name tells us that the flower has a tongue like a belt, and the species tells us it has leaves like a pine. There is no requirement that the orchid name make a lot of sense to us. Many of the namers of orchids left no explanation of what they meant to say. That being told, orchid names are usually not random and often contain a lot of meaning

### A Peculiarity of the Plant – Color

Orchid colors are often a striking feature, and the specific epithet (name of the species) sometimes denotes the color of the orchid or some part of it. *Paphiopedilum concolor* has a single color, *Leptotes bicolor* has two colors, *Vanda tricolor* has three colors, *Platyrhiza quadricolor* has four colors, and *Dendrobium discolor* has mixed colors. *Broughtonia sanguinea* is blood red, *Phalaenopsis viridis* is greenish, and *Angraecum eburneum* is ivory. Sometimes the species name refers to the color of the



Paphiopedilum concolor indicates a single color.

lip only like *Cattleya purpurata* with a purple lip or *Cattleya sanguiloba* with blood red lobes to the lip. In that vein, *Aerangis luteoalba* var. *rhodosricta* has red dots and *Cymbidium erythrostylum* has a red column.

Some of the names that refer to color are rather inventive and difficult to figure out. Apricot-colored flowers like *Paphiopedilum armeniacum* and *Gongora armeniaca* derive their names from the fact that *armeniacus* means "apricot-colored," the apricot being said to come from Armenia. The endings are spelled in different ways because orchid naming rules dictated that the endings had to agree in count, case and gender with the thing being described.

Cattleya coccinea and the genus Coccineorchis come from the word for scarlet, but sometimes the reference to color is far-fetched. Masdevallia militaris (now Masdevallia coccinea) has nothing to do with the military. The name denotes that the dark red color of the orchid resembles the British military uniforms, the "redcoat" color of the tunic; the new name comes from scarlet as



Platyrhiza quadricolor is named for its four colors.

mentioned above. With *Sudamerlycaste locusta*, the orchid looks nothing like a locust, but it is as green as the insect.

References to white flowers are similarly figurative. The snow-white *Angraecum magdalenae* refers to how spotlessly white Mary Magdalena was after Jesus forgave her sins. *Dendrobium virgineum*, too, derives its name from the spotless white condition of the Virgin Mary. The white flowers (albeit flushed with pink) of the orchids *Lycaste virginalis* and *Isabelia virginalis* are also named for the Virgin Mary. The term *parthenius* refers to the virgin goddess Athena Parthenon, for whom the white *Dendrobium parthenium* was named.

There were many different terms for describing the beautiful purple species—Paphiopedilum purpuratum, Orchis purpurea, Dactylorhiza purpurella, and Cattleya porphyroglossa. Because ancient Phoenicians produced purple dye, the purple Encyclia was called Encyclia phoenicea. Likewise, the purple Bifrenaria tyrianthina received its name because the ancient Phoenician city of



*Leptotes bicolor* is named for its two colors.

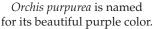


Cymbidium erythrostylum is named for its red column.



Cattleya coccinea 'Marsh Hollow' is named for its scarlet color.







Dracula vampira 'Bela Lugosi' FCC/AOS.



*Prosthechea cochleata* is named for its shell-like form.

Tyros was famous for its purple dyes produced from murex shells.

Some of the color names are puzzling and sometimes wrong. The name of the Brazilian orchid *Cyanaeorchis* is often described as meaning "blue orchid" even though the flowers are yellow-green. Barbosa-Rodriguez got the name from *Cyane*, a Greek water nymph, alluding to the aquatic habitat of the plant and not the color at all.

Cattleya purpurata incorrectly identifies this orchid as always being purple. We know that it occurs in many different colors with the lip especially varying widely. When variations in a species are not great enough to initiate a completely new species, the genus and species are followed by "var." or "f." indicating a variety or different form of the orchid, different enough to mention. The catalogue of the nursery of Alvim Seidel of Corupa, Sta. Catarina, Brazil, lists 80 different varieties (not accepted names taxonomically), mostly differing in color, for *Cattleya purpurata*. For example, the lip of *C. purpu*rata var. carnea is meat-red, C. purpurata var. rosa-cereja is cherry-red, C. purpurata var. aco is steel blue, C. purpurata var. alba is white and C. purpurata var. russeliana has a yellow throat. There are even subvarieties such as C. purpurata var. russeliana subvar. oculata which has yellow eyes in the throat.

# Orchids Named for What They Look Like

Many species' names describe physical characteristics of the orchid or compare it to something else. For example, *Psychopsis papilio* notes its resemblance to a butterfly and *Neottia nidus-avis* notes its resemblance to a bird's nest.

An orchid can be compared to another plant or to a

part of another plant as in *Holcoglossum quasipinifolium* (like pine needles). It can be compared to an animal as with *Brassia arachnoidea* (like a spider), *Dendrobium taurinum* (like a bull horn) or *Prosthechea vespa* (like a wasp). Sometimes the comparison is to a mythic being or human as in *Catasetum gnomus* (like a gnome), *Dracula vampira* (like a vampire), or *Dendrobium draconis* and *Disa draconis* (like a dragon).

Comparison may be to an object, too, like *Cymbidium* ensifolium (with leaves like a sword), *Dendrochilum* filiforme (thread-like), *Myrmecophila tibicinis* (flute-like) or *Ophrys speculum* (like a mirror). Other comparisons to things include *Oncidium hastatum* (like a lance), *Dendrobium cucumerinum* (like a cucumber) or *Dendrophylax funalis* (like a rope).

Ancient Greek also provides the suffix -oides or -odes which also mean "like," as in Coelogyne lycastoides (like a lycaste), Encyclia oncidioides (like an oncidium), Ionopsis satyrioides (like a satyrium), or Stelis cypripedioides (like a cypripedium).

The people who named orchids often noted its size in its species epithet. A huge phalaenopsis became *Phalaenopsis gigantea*, a big cattleya was called *Cattleya maxima*, and a cattleya with large flowers was called *Cattleya grandis*. Little orchids got their share of recognition. Both the genus and species of *Erycina pusilla* mean "tiny," and both *Prosthechea pygmaea* and *Cattleya liliputana* are clearly small. *Trichocentrum nanum* compares the orchid to a dwarf, and *Cattleya pumila* to a midget.

The less imaginative would note some oddity of the bulbs, stems, leaves, inflorescence, flower, or lip that set this orchid apart from others. The shape of the bulb or stem is described in *Arethusa bulbosa* (bulbous), *Bulbophyllum* (bulbous leaf), *Cynorkis* (dog's testicles), *Dactylorhiza* (finger-like roots), and *Herminium monorchis* (only one bulb). The shape of the leaves, on the other

hand, is clearly noted in Vanda falcata (sickle-shaped), Koellensteinia graminea (grass-like), Dactylorhiza maculata (spotted), and Dendrobium aphyllum (without leaves). The shape of the panicle or inflorescence is noted in *Cat*tleya cernua (nodding), and Brassia arcuigera (carrying an arc). Flower and pollination organ shape determine the names of Angraecum pyriforme (pear-shaped), Brassia caudata (with a tail), and Telipogon (with a bearded end). Finally, the form of the lip is vividly memorialized in names like Paraphalaenopsis serpentilingua (snake tongue) and Prosthechea cochleata (shell-like). The fragrance of the orchid is noted in many orchid species names. Often, it is not very descriptive since fragrans just means "fragrant" without additional information as to how fragrant it is and what the fragrance is like. Some orchids with strong fragrance are called Aerides odorata, Prosthechea fragrans, and Diaphananthe fragrantissima. Some of the species names refer to a specific fragrance like Dactylorhiza sambucina (like holly flowers), Bulbophyllum putidum (smells putrid), and Himantoglossum hircinum (stinks like a goat).

Some orchids get a general name just meaning that they are pretty, which does not distinguish them very much from many other orchids. Examples of these are the genus *Calanthe* which means "nice blooming," and the species *bellatus* which means "beautiful," *venustus* which means lovely, and *speciosus* which means "distinguished."

Sometimes, the descriptions are just wrong. *Paphiopedilum micranthum* does not have tiny flowers as its name implies but rather has a large flower in relation to the whole plant. It is thought that the description by Tang and Wang might have been for a plant with unusually small flowers.

Wawra created the genus *Eurystyles* which means "broad column" which it does not have, and *Cattleya maxima* is not the largest cattleya and does not have the largest flower. (That is *Cattleya warscewiczii* according to Mayr.) *Disa uniflora* indicates that there is only one flower, but it usually produces more than one flower. Then there is *Dendrobium anosmum* which means "odor-

©Ron Parsons, grown by Masaki Asuka.

Disa uniflora 'Buff' name indicates one flower, but it usually has more than one.

less" but, nonetheless, has an intense odor of rhubarb.

Some of the names are hard to understand. People who named the plants often did not describe how they named the plants. *Gomesa ranifera* means "frog-carrying Gomesa," but the plant does not look like a frog but like little wasps. *Aerides quinquevulnera* means "Aerides with five wounds," but it takes a great deal of imagination to see wounds in this beautiful spotted orchid. Moreover, the flower they call *Zygopetalum triste* does not look sad at all but is really quite lovely. Finally, the birds referred to in *Epidendrum avicula* are really hard to see.

# Naming Orchids for Their Geographical Region

A favorite method for naming orchids, especially species names, is to make a geographical or habitat reference to where they come from. They frequently have a suffix like *-iensism,-ense, -ensis, -anus, -acus, -iacaor, -icus*, or *-ana*. Occasionally, the name tells which continent the orchid is from like *Ansellia africana*. Sometimes, the name refers to a country as in *Paphiopedilum philippinense* (Philippines), *Dichaea panamensis* (Panama), *Sedirea japonica* (Japan), and *Tolumnia haitiensis* (Haiti). Knowing that, you would have little trouble figuring out where *Hintonella mexicana* comes from.

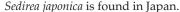
Some orchids are named more specifically for the town they are associated with. Angraecum dauphinense grows near Fort Dauphin in Southern Madagascar, Masdevallia tovarensis is from Tovar in Venezuela, and Ophrys lutea subsp. galilaea is from the Galilee of the Bible. Their island or archipelago home is recognized in names like Ophrys kotschyi subsp. cretica (Crete), Phalaenopsis sumatrana (Sumatra), Vanda luzonica (Luzon in the Philippines), or Angraecum mauritianum (Mauritius Island).

In addition, rivers are sometimes commemorated in orchid names like *Polystachya zambesiaca* (Zambezi River in Africa) or *Paraphalaenopsis labukensis* (Labuk River in Sabah). Other times mountain ranges give



*Phalaenopsis sumatrana* is named for the island Sumatra.







Polystachya zambesiaca is named after the Zambezi River in Africa.



Odontoglossum harryanum was named for Harry Veitch.

their names as in *Cattleya acuensis* (Acu Mountain in the Organ Mountains, Brazil) or *Cypripedium himalaicum* (Himalayas)

#### Naming for Habitat

Orchid names sometimes give information about the habitat where the orchid can be found. Such is the case with *Polystachya vulcanica*, and *Oncidium vulcanicum*, which grow on the slopes of volcanoes.

Hammarbya paludosa is said to grow in the swamps, Oberonia marina by the sea, and Epidendrum lacustre near a lake. Similarly, the name Calanthe sylvatica indicates it grows in the forest, and Angraecum litorale notes that it grows on the coast near the beach.

Sometimes, the name is misleading as with *Epipactis dunensis* and *Anacamptis collina* both of which grow on both dunes and hills. *Polystachya adansoniae* often grows on Adansonia, a succulent tree of Africa and Madagascar, but it also grows on other types of trees. Often, the name is not exactly accurate.

Flowering time sometimes determines the name of the orchid as in *Spiranthes vernalis* (spring) and *Laelia autumnalis* (autumn). *Dactylorhiza majalis* blooms in May, and *Pleione praecox* blooms early. Finally, *Aplectrum hyemale*, which means winter, has a leaf which appears only in winter.

### Naming Orchids for People

What could be more natural than to name an orchid for someone important to you—or to the orchid world. Who wouldn't love a gorgeous orchid named after them! One speaker to our club said he was going to name an orchid for me, but, alas, that never happened. The last name of the person is most often used as in the genera Cattleya, Pescatorea, Masdevallia, Bletia, Koellensteinia, Stanhopea, and Barbosella. Occasionally the first

name is used as was the case with HarryVeitch who had the species *Odontoglossum harryanum* (now *Oncidium harryanum*) named in his honor. George Ure Skinner had some orchids named with his surname only like *Guarianthe skinneri* and others which included his middle namelike *Rhynchostele uroskinneri*.

Some famous people have a great many orchids named for them. The French botanist Henri Perrier de la Bathie (1873–1958), who researched the orchids of Madagascar, had at least 25 orchids named for him. The genus *Neobathiea* pays homage to his second surname. The species *Microcoelia perrieri* and *Aeranthes neoperrieri* use his first surname, and the species *Jumellea bathiei* and *Aeranthes bathieana* use his second. Moreover, *Erasanthe henrici* honors his Christian name.

One orchid was even named for two botanists—the genus *Kuhlhasseltia* for Kuhl and Hasselt. The prize for inventiveness goes to the American botanist Calaway Dodson who named the genus Raycadenco (now *Fernandezia*) for four of his friends and orchid lovers, Ray McCullough, Carl Witner, Dennis D'Allesandro, and Cordelia Head. If you look at old botanical literature, you will see that a surname used as a species used to be capitalized like *Phalaenopsis Schilleriana*. That is no longer the case, and now the species is always in lower case and italicized; *Phalaenopsis schilleriana* is the accepted form. When a genus honors an individual, suffixes like *-a*, *-ea-* or *-ia* are often used as in *Stanhopea* (Earl of Stanhope) and *Cattleya* (William Cattleya).

If the name is a tribute to an individual who has not been associated with that particular species but is simply being honored, the adjectival form *-ianus*, *-iana*, or *-ianum* usually is used. The American Orchid Society points out that statesmen, patrons, and benefactors were often thus glorified, as in such species as *Vanda sanderiana* (Frederick Sander), or *Phalaenopsis stuartiana* (Stuart Low).



Flowering time determined the name for Laelia autumnalis (autumn).

Species that are adjectives based on names must, of course, agree with the genus name in number, gender, and case leading to many variations of the same last name. This leads to such difficult-to-spell species as *Eurychone rothschildiana*, *Paphiopedilum rothschildianum*, and *Ancistrochilus rothschildianus* (Baron Ferdinand de Rothschild). Beginners shudder at this...

If the person being honored was in some way responsible for the orchid's introduction, the endings -ii or -i are often used with a man's name as in *Dimorphorchis lowii*, *Cattleya warneri*, and *Specklinia grobyi*.

When the names of females are honored, the endings preferred are —iae or —ae resulting in species names like Cattleya mossiae, Cattleya aclandiae, Angraecum magdalenae, and Euchile mariae.

To make it even more difficult, when a family name ends in *-er*, an *-ae* is added to a species name so that you get *Psychopsis sanderae* or *Paphiopedilum hookerae*. Although Lindley established the rules above for orchids which commemorated people, not all botanists followed it so that one cannot reliably tell today whether the people honored had anything to do with the specific orchid. It is, however, a guide.



*Dimorphorchis lowii* commerates the person who introduced the orchid into cultivation.



Pleione praecox blooms early.

Mayr divides the names into several groups:

- The name of the collector who discovered the orchids
- 2. The person who flowered it first
- 3. A wealthy orchid keeper
- 4. A gardener or nursery
- 5. A botanist, scientist or missionary
- 6. A relative or friend
- 7. A person with botanical interests
- 8. A historical person.

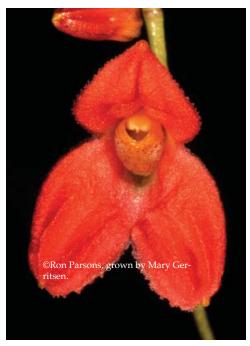
#### Orchids Named for Collectors

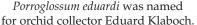
Many orchids were named for the men who went on orchid expeditions. Braving terrifying dangers, collectors of orchids deserved to have orchids named for them. Many died on orchid expeditions, eaten by a tiger, speared by a native, bitten by a snake, or felled by yellow fever. Called "travelers," they were a tough and eccentric bunch.

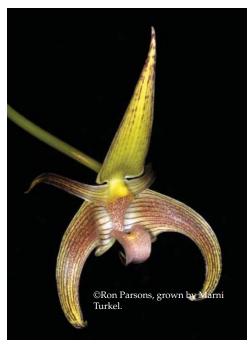
Among the legends of this world was **Benedict Roezl** for whom many orchids were named including *Miltoniopsis roezlii*, *Sobralia roezlii*, and the genus *Roezli*-



Cattleya aclandiae honors Lady Ackland from Exeter, England.







Bulbophyllum lobbii is named after its discoverer Thomas Lobb.



Sievekingia reichenbachiana memorializes botanist Heinrich Gustav Reichenbach.

ella (now a synonym of Oncidium). Six-foot-two with piercing blue eyes and a hook where his left arm used to be, he was a solitary figure traveling on horseback and foot to every corner of the globe. He discovered 800 species of flowering plants and trees new to horticulture, and many consider him the greatest collector who ever lived.

A sister of Roezl, Anna, married Jan Klaboch and gave birth to Eduard and Franz Klaboch, who followed in their uncle's footsteps and traveled with him to the Americas. The two Klaboch brothers loved to explore, especially in Ecuador. Franz died of yellow fever at 23. Edward continued collecting for years, but entries frequently refer to the Brothers Klaboch or to Messrs. Klaboch. *Porroglossum eduardi* and *Cyrtochilum edwardii* are named in honor of Edward. *Pescatoria klabochorum* and *Masdevallia klabochorum* are both named for the two brothers.

Diagnosed as both deaf and dumb until he was six years old, **Gustavus Wallis** later surprised everyone when he began to speak, although with a speech impediment, and even learn foreign languages. Traveling throughout South America, he collected in Venezuela, Brazil, and Peru. *Neomoorea wallisii*, *Oncidium wallisii*, *Huntleya wallisii*, *Epidendrum wallisii*, *Dracula wallisii*, and *Huntleya gustavii* were all named for him.

Much is known about **William Micholitz** whose 1000 letters to Frederick Sander from the jungles still exist. Famous for discovering *Dendrobium phalaenopsis* var. *schroderianum* (now *Dendrobium striaenopsis*) growing in human skulls, he refused to go back and collect more because he said, "I have no particular desire to leave my own skull behind." One specimen attached to a skull arrived at auction in 1891 and caused quite a stir. Among the orchids named for him are *Phalaenopsis micholitzi* and the hybrid *Coelogyne* Memoria William

Micholitz AM/RHS (*Coelogyne lawrenceana* × *Coelogyne mooreana*). Note that the "×" used in denoting hybrid crosses is a multiplication symbol and not a lower case "x."

In modern times, the notorious orchid *Phragmipedium kovachii* was named for **James Michael Kovach** of Virgina who travelled to El Progresso in Peru. After being offered three pots of the magnificent orchid by a man at a flower stand, he brought them into the United States to the Marie Selby Botanical Gardens without the proper permits. Atwood, Dalstrom, and Fernandez published its description in 2002 even though it had been brought into the country illegally, and they all paid fines and offered public apologies. *Phragmipedium kovachii* has been called the most spectacular orchid of the last 100 years.

Among the other orchids named for the collectors who discovered them are *Bulbophyllum lobbii* (Thomas Lobb), *Cynorkis lowiana* (Sir Hugh Low), *Cattleya angereri*, (Ernst Angerer), and *Gomesa*, *Cattleya*, and *Dendrobium forbesii* (James Forbes).

## Orchids Named for the Person Who Flowered It First

Of course, orchids didn't arrive in Europe in bloom. They often withstood months of neglect in stuffy boxes in dreadful heat or cold before they were sold at auction. Many orchids perished in the heat and humidity of the "stoves" which cooked many of them to death. The growers who managed to flower these new orchids for the first time were sometimes honored with the name of the orchid, and they well deserved that honor.

The first *Cattleya mossiae* that reached Europe was given to George Green by a friend in Venezuela. Green gave the plant to a **Mrs. Moss** of Otterpool, England, who flowered it. She was so excited that she sent the

flowers and her own pencil sketch to William Jackson Hooker in Glasgow. The fragrant rose-lavender flowers were an astonishing 8 1/2 inches across; Hooker was impressed and named the orchid for her. Similarly, *Cattleya aclandiae* (**Lady Ackland** in Exeter, England) and *Grobya amherstiae* (**Lady Amherst**) were also named for the ladies who were the first to flower them. Notice the "iae" endings, denoting a lady being honored.

#### Name of a Wealthy Orchid Keeper

Orchids could sell for as much as \$5000 in today's money, and it is no wonder that these rich men who bought orchids or financed expeditions were honored in naming.

William Cattley had the honor of having the genus Cattleya named for him after the naturalist William Swainson discovered Cattleya labiata in Brazil in 1817. At Swainson's request, the Glasgow Botanic Garden sent divisions of this spectacular orchid to the tropical plant collector William Cattley of Barnet, England. Cattley hired the botanist John Lindley, and he published a book, Collectanea Botanica, in which the orchid was described and named for Cattley.

Zootrophion dayanum, Paphiopedilum dayanum, Cirrhopetalum dayanum, and Cymbidium dayanum are just a few of the orchids named for **John Day**, well known for his some 4000 illustrations of orchid species and provided many plants to the botanist **Heinrich Gustav Reichenbach**.

Reichenbach was a towering figure in orchidology, and orchid specimens flowed in to him for identification. His notes, drawings, and specimens formed an impressive herbarium that rivaled Lindley's at Kew. The orchid world was dismayed when his will puzzlingly directed that nothing from the herbarium could be exhibited for 25 years from the date of his death. He is memorialized in the orchids *Benzingia reichenbachiana*, and *Sievekingia reichenbachiana*. He was not terribly impressed by having orchids named for him and said, "I cannot eat the honor." He was, however, very pleased when Frederick Sander named his gargantuan orchid book *Reichenbachia* for him.

Some very influential orchid collectors had dozens of plants named for them. William Spencer Cavendish, the 6th Duke of Devonshire, inherited his title at 21 along with an income of £70,000 a year (about seven million dollars today) and he spent much of it on orchids. Rich beyond belief, he established extensive greenhouses at Chatsworth where his orchids and other tropical plants thrived. Well-connected to the nobility of the orchid world, he had many orchids named in his honor including many species named devonianum or cavendishianum or some variety of the two. His memory is preserved, for example in Dendrobium devonianum, Trichocentrum cavendishianum, Cymbidium devonianum, and Galeandra devoniana. Other wealthy orchid keepers had orchids named for them including Viscount Milton (the genus Miltonia), the French noble Pescatore (the genus *Pescatoria*), the famous family of bankers **Rothschild** (*Paphiopedilum rothschildianum*), **Senator Schiller** from Hamburg (*Phalaenopsis schilleriana*), and the **Earl of Stanhope** (*Stanhopea*).

#### Name of a Botanist

Reichenbach was not the only botanist who was honored with an orchid name. John Lindley was a prominent 19th century botanist, very famous as editor of the *Gardeners' Chronicle*. Blind in one eye and afflicted with poor mental and physical health, he nonetheless did much to end the chaos of orchid classification, described and drew many orchids and had a world-class herbarium. He has an impressive list of orchids named for him. In addition to the genera *Neolindleya*, there are *Barkeria lindleyana*, *Oncidium lindleyoides*, *Sobralia lindleyana*, *Cyclopogon lindleyanus*, and *Bulbophyllum lindleyanum*.

Joseph Dalton Hooker was intimately connected with the rise of the Royal Botanic Gardens at Kew. An M.D., Joseph was the son of the famous Sir William Hooker, the first director of Kew. When his father died, Joseph succeeded him. He acquired Lindley's herbarium for Kew, adding to its prestige, and was the president of the Royal Society for five years. A lifelong friend and supporter of Charles Darwin, he wrote his biography and was editor of the *Icones Plantarum and the Botanical Magazine* for 40 years. His name is perpetuated in the orchid genera *Josephia* (now included in *Sirhookera*) and *Sirhookera* and in *Mormodes hookeri*, *Gomesa hookeri*, *Paphiopedilum hookerae*, *Pleione hookeriana*, and *Papilionanthe hookeriana*.

Finally, **Gunnar Seidenfaden** was a renowned Danish orchidologist who did extensive research into the orchids of Southeast Asia. The genera *Gunnarella*, and *Seidenfadenia* were named for him.

Other botanists were honored including Charles Schweinfurth (Cischweinfia), Rudolf Schlecter (Epidendrum schlechterianum), Alfred Cogniaux (Neocogniauxia), William Brass (Brassia), Antonio Musa Brassavole (Brassavola), John Ansell (Ansellia), and Robert Dressler (Dressleria and Dresslerella).

## Naming for a Relative or Friend

It seems only natural that one would want to name an orchid for a friend or relative. Psychopsis sanderae was named for the famed nurseryman Frederick Sander's wife Elizabeth and the genus Sobennikoffia was named in honor of the maiden name of the botanist Schlecter's wife.

Cattleya reginae was named for the orchid discoverer E. Angerer's wife, and Cattleya schroederae was named for Baroness Schroeder, wife of the Baron who had one of the finest orchid collections in Europe. Similarly, Phalaenopsis mariae honored Maria Burbridge, wife of the collector, and Pecteilis susannae honored Susana Rumphius, wife of the botanist.

## Naming for a Person with Botanical Interests

Some names are given to honor someone associated with orchids in some other way. For example, Cattleya dowiana memorializes a Captain Dow of the American Packet Service. Turned on to the beauty of orchids by George Ure Skinner, he successful shipped many orchids to England (including lycastes) despite the dangers of pirates, rats, shipwreck and fire. The genus Drakaea honors Sarah Ann Drake, known as "Miss Drake," originally Lindley's family governess, who went on to do many botanical illustrations for the botanist. Paphiopedilum mastersianum honors Dr. Maxwell Masters who published the famous periodical Gardeners' Chronicle, and Oncidium baueri honors the Austrian Ferdinand Bauer who painted for the Royal Horticultural Society.

### Naming for a Historic Person

Since the person who names an orchid can name it for just about anyone, sometimes famous historic or noble people are chosen. *Paphiopedilum victoria-regina* and *Dendrobum victoriae-reginae*, were named for **Queen Victoria** who loved orchids so much that she even had a Royal Orchid Grower. In 1887, at her Golden Jubilee, Sander made her a great orchid bouquet, seven feet high and five feet in diameter, featuring big cattleyas and golden dendrobium interwined with giant sprays of vandas, odontoglossums, and coelogyne which the *Times* said was a masterpiece. Queen Victoria loved to have her royal box at Convent Garden covered with orchids too.

Others orchids were named for historical persons including *Paphiopedilum wilhelminae* (Wilhelmina, Queen of the Netherlands), *Gomesa imperatoris-maximiliani* (Maximillian, Archduke of Austria), *Epistephium regisalberti* (Albert I, King of Belgium), the genus *Isabelia* (the Brazilian princess Isabel) and even the genus *Aspasia* for Aspasia, courtesan and second wife of the Athenian politician Pericles.

### Orchids Named for Nurseries and Gardeners

Many orchids were named for the men who established famous nurseries that collected, flowered, and distributed orchids in the 19th century. Prominent among them was **Frederick Sander**. Only five feet four inches tall, he was the giant of the orchid world for more than half a century. They called him the Orchid King, the undisputed rule at a time when orchids were royalty. He gave millions and millions of orchids to the world. Dozens of orchids were named for him including *Vanda sanderiana*, *Bulbophyllum sanderianum*, *Calanthe sanderiana*, *Cymbidium sanderae*, *Phalaenopsis sanderiana*, *Paphiopedilum sanderianum*, *Psychopsis sanderae*, and others.

In addition, the nurseries of the Veitch family were world-renowned in the 19th century. In addition to numerous orchids, they introduced begonias, magnolia, and many conifers, shrubs and climbers. For these, we have to thank Sir Harry Veitch, who ran the James Veitch and Sons nursery in Chelsea and who, with his father, was responsible for sending out plant hunters to bring back so many of the species that we now take for granted. He was regarded during the last fifty years of his life as the most influential man in horticulture. Harry was born in 1840, the year that Veitch Nurseries sent out the first of their plant hunters Thomas Lobb to the Indo-Malayan region. Some of the plants named for Lobb include Bulbophyllum lobbii, Phalaenopsis lobbii, and many plants in other families. The Veitch family had many orchids named for them including Phalaenopsis × veitchiana, Masdevallia veitchiana, and Calanthe × veitchii.

In addition, the Loddiges nursery grew to great prominence in the early 19th century under **George Loddiges**, publisher of the *Botanical Cabinet*. The 20 parts, published from 1817 to 1833, included 2000 color plates of rare plants drawn from plants introduced into his hothouses and gardens from everywhere in the world. Loddiges and his family are honored in *Dendrobium loddigesii*, *Cattleya loddigesii*, and *Cycnoches loddigesii*.

Famous gardeners also got their share of names. John Day purchased the orchid *Paphiopedilum stonei* which Hugh Low had collected, and the orchid was named for his gardener **Robert Stone**.

Paphiopedilum delenatii was named for the then-director of the Botanical Gardens of St. Germaine, a Mr. Delenat, which received the species in 1914. The plant that was sent to him is now thought NOT to have been Paphiopedilum delenatii but to really have been Paphiopedilum vietnamense, a closely-related species which was recently re-discovered in Vietnam. The real Paphiopedilum delenatii was then introduced twice, first in 1922 by a French collector, but there was only one plant of it that did not die. It was rediscovered in 1990 in southern Vietnam. Plants were illegally collected, and Dr. Leonid Averyanov, the foremost authority on the orchids of Vietnam, estimates that six tons of Paphiopedilum delenatii were collected and exported.

## Mythological Names of Orchids

At the zenith of Orchidmania, educated people were familiar with classical literature and Greek and Roman mythology. 19th century poetry is full of casual references to Greek and Roman gods and goddesses, references which would have been well-known to readers of the time. The name "orchid" itself is rooted in mythology. "Orchis" is the Greek word for "testicle" because the paired underground tubers of some terrestrial orchids were thought to resemble that part of the male anatomy. Ancient people thought that orchids arose when the semen of bulls or satyrs dropped to the ground. Accord-

ing to Dioscorides' *The Doctrine of Signatures*, if something looked like a body part, it was good for curing or helping that human body part. Because of what orchid tubers looked like, ancients associated orchids with sex and used them for thousands of years as an aphrodisiac and cure for infertility and venereal disease.

The Romans told the story of Orchis, the son of a satyr and a nymph, who attended a party to celebrate the birthday of Bacchus (Dionysus), the god of wine. Orchis got drunk and seduced a virgin priestess. The gods were so angry at this violation that they tore Orchis apart and scattered his body all over the world. His father begged for him to be restored to life, but the gods instead had orchids sprout from the pieces of his body.

There are a good many genera named for Greek and Roman mythological figures. Many of the names have little to do with the characteristics of the orchid. Mythological names were just considered classy and beautiful. Arachne, the girl who was an excellent weaver, gave her name to the genus *Arachnis* because of the resemblance to spiders. When the Greek goddess Minerva, daughter of Zeus, found she couldn't compete with Arachne, she destroyed her work. Arachne was so upset that she hanged herself. Overcome with shame, Minerva changed her back into a spider, and Arachne continues to spin today.

The genus *Arethusa* was named for the Greek fountain-nymph Arethusa, probably because of the wet habitat preferred by most of the species.

Calypso was named for Calypso, the daughter of Atlas, who lived on an island where the warrior Odysseus, returning from the Trojan War, was washed ashore. Calypso fell in love with him and detained him for seven years until Zeus through Hermes made her let him go.

The genera *Paphinia*, *Paphiopedilum*, and *Cypripedium* all reflect the many names of goddess Aphrodite; among her names were Paphios, Kypros, and Doritis. *Paphos* is derived from the city of Paphos where it is said she lived and was worshipped. She arose from the foam of the sea and settled on the island of Cyprus *Erycina*, a genus named by Lindley in 1853, was another name for Aphrodite, who guarded her shrine at Mt. Eryx of Sicily. "Erycina" means "of the heather," denoting the red robe she wore while seducing a king on the mountain top.

The Roman Dis was an alternative name for Plato or Hades, god of the Underworld. Many people preferred not to utter the name of the god and just used an alternative name. This euphemism gave its name to the genus *Disa*. Some authors state that it comes from the word *dis* or *dives* meaning "rich" referring to the beauty of the flower.

The genus *Elleanthus* was named in honor of Helle, a mortal princess, who, hated by her stepmother, fled with her twin brother Phrixus. *Elleanthus* is a genus name with a compound word made up of "Elle" or Helle and *anthus* meaning "flower."

Because of its snake-like shoots, *Epidendrum medusae* has a specific epithet that refers to the snake-haired monster, Medusa, slain by Perseus. Similarly, *Bulbophyllum medusae* is so named because it has flowers with hairs that wave in the breeze like moving snakes.

The common name for *Ionopsis satyrioides* is The Violet Orchid. Ion is the Greek word for "violet," making it easy to see why the purple or violet flowers of the genus *Ionopsis* got that name. The genus *Laelia* was named for one of the six Vestal Virgins who in Rome guarded the fire of the goddess Vesta, sister of Zeus.

The beautiful genus *Lycaste* was named for one of the many daughters of King Priam of Troy. She was the sister of Helen of Troy, with the famous face that launched a thousand ships.

Genera *Dryadella* and *Dryadorchis* were named for the Dryades, nymphs of the woods and forests, whereas *Orestias* was named for nymphs of the mountains. *Satyrium* was named after Satyrs, the troop of male goat-like companions of Dionysus, and *Serapias* was named for an ancient Egyptian god.

Finally, the genera *Oeonia* and *Oeoniella* were named for Oeonus, who was said to have been killed by the sons of Hippocoon, King of Sparta, for throwing a stone at their dog. Clearly, the mythological names given to orchids are usually unrelated to their physical or habitat characteristics.

Mayr claimed that the 19th Century Swiss-American botanist Rafinesque-Schmaltz created the genera *Tolumnia*, claiming they were antique characters, often water spirits or nymphs, but Mayr says there is no evidence of them in mythology and that Rafinesque-Schmaltz just invented the names!! Today, it is more common to use properties of plants or their habitats than mythological names.

### Naming Orchid Hybrids

And then, of course, there is the naming of orchid hybrids, a huge subject. The naming of orchid hybrids goes back 150 years when breeders first crossed desirable species. Many hybrids honor celebrities, politicians, and royalty. Recently, the press followed Prince William and his wife Catherine to the National Orchid Garden, part of the Singapore Botanic Gardens to see the beautiful white orchid hybrid named for his mother, the late Princess Diana. She never saw the orchid, which was christened *Dendrobium* Memoria Princess Diana (Pattaya Beauty × Fairy Wong) a month after her death in a car accident in Paris in 1997. The royal couple also viewed *Dendrobium* Queen Elizabeth II (Emma Zunz × Lakshmie Wickramasinghe) named for William's grandmother in 1972.

In the United States, Chadwick orchids has continued the "First Lady tradition" by naming cattleya orchids after the most recent presidential wives – Michelle Obama, Laura Bush, Hillary Rodham Clinton, and Barbara Bush – and has personally presented the flowers to them. Other female celebrities to have re-

ceived their hybrids include Martha Stewart, Margaret Thatcher, Tipper Gore, Priscilla Presley, and the Princess of Cambodia Yinneka Norod.

Hybrids have also been named for such diverse people as Sarah Jessica Parker, Carla Bruni-Sarkozy, and Elton John. Want to have a hybrid named for you? Chadwick has a program called "Name Your Own Orchid." For \$1500, an entire cross of seedlings are officially registered under any name you choose, pending approval from the Royal Horticultural Society with a certificate of authenticity. You will also get up to 20 blooming size specimens each slightly different with the new botanical name. Cattleyas are the main genera available although paphiopedilums may be obtained.

Of course, hybrids may be named for many other things besides celebrities. More than 150,000 hybrids are logged in Britain with the Royal Horticultural Society International Register of Orchid Hybrids. Julian Shaw, senior registrar for orchid hybrids, states, "... it's become quite trendy to name an orchid for your local school, hospital, notable anniversary, or as social commentary of events and people: Titanic, 9/11, tsunami warning..."

When a hybrid is named, the breeder assigns a grex name that applies to all the progeny. It begins with a capital letter and is not italicized. For example, when *Paphiopedilum niveum* was crossed with *Paphiopedilum tonsum*, all progeny were known as *Paphiopedilum* Olivia. Plants within the cross are often given a cultivar name such as *Paphiopedilum* Olivia 'Casa Luna.'

As we have seen, orchid names certainly introduce us to the fascinating world of orchid history.\*

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