

ORCHIDS: BEAUTIFUL SYMBOLS OF BEAUTIFUL PLACES

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NATIONAL SYMBOLS are meant to unite a people by creating a visual representation of their values, goals or character. Benjamin Franklin famously suggested that the bald eagle was a terrible symbol of America—a coward and a robber, too lazy to hunt for himself. He suggested rather the turkey, a true native of great courage and intelligence. Nobody took Franklin up on his suggestion. To be chosen as a symbol, it helps if you are majestic and beautiful and inspiring. You just can't be a turkey.

It is no wonder that orchids have so often been chosen as the floral symbols of so many nations, provinces and states. They are indeed majestic, beautiful and inspiring, the object of national pride and admiration. Exotic, erotic, and increasingly endangered, they conjure up images of raw nature and vibrant wilderness. They are tough survivors in a changing world, and they demand our respect and admiration. Come with us as we explore the fascinating world of orchids as proud symbols of many lands.

Minnesota:

The State that Changed its Mind

In the United States, the rose was the national flower, but the first state flower was an orchid. No, it wasn't Hawaii—it was cold Minnesota. To celebrate the 1893 Chicago World's Fair, states were invited to adopt floral emblems. Minnesota was the first to step up, adopting a yellow lady's slipper known as the Showy Lady's Slipper (*Cypripedium calceolus*) on February 5, 1893. The story goes that a year later the ladies of the Saint Anthony Study Circle complained that *Cypripedium calceolus* didn't grow in Minnesota and therefore shouldn't be the state flower. Jumping on the bandwagon, the *Minnesota Tribune* followed up with an inflammatory article on February 2, 1902 with the headline, "State Flower Called a Fake." An embarrassed and flustered State Legislature quickly adopted *Cypripedium reginae* (which they were sure grew in Minnesota) as the new state flower just 17 days later, noting that the other orchid was a "misnomer."

The Showy Lady's Slipper is a magnificent orchid, thought by many to be the most beautiful of the state's 43 native orchids. *Reginae* means "queen," and this flower really is the queen of the lady slippers. Well-established plants can produce clumps with numerous flowering stems from one to three feet (31-91 cm) high with one to two or rarely three or four stunning flowers. The big, beautiful flowers have white sepals and petals and a gorgeous pink lip. They are found widely throughout northern and eastern North America and across the Great Lakes in shady bog margins, wet meadows, wet prairies, and cool, damp woods. Slow-growing, the plants only stand as tall as a pencil point



Minnesota: *Cypripedium reginae*

the first year, often taking 16 years before the first bloom. Once they do bloom, they can produce a half-million dust-like seeds a year, more than making up for their slow growth.

A century ago, *Cyp. reginae* was frequently used to decorate church altars, but now the orchid is uncommon in Minnesota. Populations are hurt by wetland drainage, road construction, tree cuttings and uprooting as well as roadside herbicide use. The best conservation measures include protecting the native habitat. Since 1925, the state has regulated the collection and commercial sale of the species, and it is illegal to pick the flowers or to uproot the plants.

In 1990, Governor Rudy Perpich declared 81 miles of Highway 11 a Minnesota Wildflower Route in honor of the hundreds of thousands of Showy Lady's Slippers that can be seen from the road. The town of Williams held a celebration which has become an annual Wildflower Day. The state put up signs depicting the orchid to mark the route and promised to expand the highway only to the south in order to protect the orchids found to the north. Minnesotans are so proud of their orchid that it even appears on manhole covers in Minneapolis, designed by Kate Burke.

What New Hampshire and Prince Edward Island have in Common

In 1991, New Hampshire chose the orchid known as Pink Lady's Slipper (*Cypripedium acaule*) as its state wildflower. It is also the floral emblem of the province of Prince Edward Island. Originally, *Cyp. reginae* was chosen as the provincial flower of Prince Edward Island, but, because it was rare, it was replaced by the more common *Cyp. acaule*. Ranging from Georgia and Alabama to Newfoundland, and the Northwest Territories, the orchid most often thrives in moist wooded areas associated with conifers. The name comes from the Greek *Kypris* meaning "Venus" and *pedion* meaning "having to do with the foot," roughly translated to "Venus's slipper," a reference to the moccasin-shaped flower. It is also known as the Moccasin Flower or the Stemless Lady's Slipper. The species name *acaule* means "without a stem," a reference to the fact that the two hairy basal leaves appear to grow right out of the ground. (The flower stalk is not considered the stem of the plant.)

The flower stalk bears a single, gorgeous, pleated vermilion-pink flower with a small opening in the front of its large inflated pouch-like lip. Although the flower has little or no nectar, the brilliant color is powerfully attractive to insects. Bees muscle their way into the opening in the front and become trapped within, unable to muscle their way out. Forced to exit another way, they effect pollination as they brush past the stigma and pollinia.

The orchid is considered endangered and protected by law in Canada. In the United States, it is protected in some areas. Its beauty has also been its undoing, and it has been commercially exploited and over-collected. This is a great pity as *Cyp. acaule* has a symbiotic relationship with a fungus in the soil, and transplantation success is very low. According to Ron Coleman, a native orchid expert, there are hopeful reports of it

recovering in its range. As more farm land reverts to forest, *Cyp. acaule* is reoccupying those areas.

The US Department of Agricultural Research lists *Cyp. acaule* as a restricted species because it is rare or endangered. It is considered vulnerable in New York, unusual in Georgia, and endangered in Tennessee and Illinois. As far back as 1927, Herman Pepon in *Flora of the Chicago Region* said that college students and florists would gather *Cyp. reginae* and *Cyp. acaule* in Illinois by the hundreds and then destroy the colonies to prevent others from competing with them. Pepon observed a teacher taking out a carload of over 800 freshly-picked orchids to sell to local florists. Now, there are only limited populations of the lady's slippers in these areas.

Lady's slipper populations have been wiped out all over the world by selfish admirers. In Lancaster, England, it is rumored that the only remaining *Cypripedium calceolus* in the country is guarded by hourly police patrols and surveillance cameras. Fiercely guarded, they say the orchid has its own log number on the police computer! It is sad that these beautiful native orchids are taken from the wild since their demanding growth requirements so often condemn them to a speedy demise in cultivation.

In folk medicine, the cypripedium root has traditionally been used as a remedy for nervousness, tooth pain and muscle spasm. In the 1800s and 1900s, it and other species in the genus were widely used as a substitute for the sedative valerian.

The Cayman Islands and the Wild Banana Orchid

Of the 26 orchid varieties thought to grow on the Cayman Islands, none is more exotic or more beloved than the national flower, *Myrmecophila* (syn. *Schomburgkia*) *thomsoniana*, the Wild Banana Orchid. This endemic orchid, found only on the Cayman Islands, varies from one island to the next. It has scent-



New Hampshire: *Cypripedium acaule*



Grand Cayman: *Myrmecophila thomsoniana*

ed flowers and purple lips, but the petals are predominantly white on Grand Cayman while another variety (*Myrmecophila thomsoniana* var. *minor*) flowers on Little Cayman and Cayman Brac are slightly smaller with pale yellow petals.

An epiphyte, the orchid most often grows on mahogany or logwood trees and is abundant in humid woodlands, wetlands and ponds. Their clusters of finger-like pseudobulbs group together at the plant base like bunches of bananas and locals call them “Wild Banana Orchids.” The long, graceful flower spikes traditionally appear in April and May. Interestingly, their close relatives in Central and South America harbor nests of stinging ants in their pseudobulbs which protect them from herbivores. In exchange for this service, the orchids provide a dry home and sweet nectar on the flower spike. In the Caymans, however, these ants are absent, and native lizards climb the flower spikes and eat the nectar. It is not clear if they frighten away herbivores, but it is, of course, possible.

The orchid is not endangered, but deforestation and real estate development threaten host trees. The government has tried to increase awareness of the need to retain trees. The orchid is carefully protected and can be seen in the Queen Elizabeth II Botanical Park along the Mastic Trail and on the nature trail in the Brac Parrot Reserve.

The White Nun Orchid of Guatemala

Out of its 1,000 orchid species, Guatemala chose the stunningly beautiful White Nun Orchid, monja blanca, (*Lycaste virginalis* [syn. *Lycaste skinneri* var. *virginalis*]), as its national flower, and it appears on the 50-centavo piece. The large triangular white sepals were likened to a nun’s cap, and it is revered as the Nun’s Orchid. It is a very beautiful member of an uncommonly beautiful genus, named for *Lycaste*, famed as the beautiful sister of Helen of Troy. This species is known as the queen of the lycastes with its natural distribution from southern Mexico through Guatemala and El Salvador into Honduras. The largest concentration is in Guatemala, especially in the vicinity of Coban. It usually grows in the forks of trees at around 5,000 feet (1524 meters) in cloud cover.

The flowers vary in color from pure white through blush, pink and lavender. Dr. Jack Fowlie, in 1970, said there were 50 distinct varieties described and estimated that probably only one in 2000 plants bore white flowers like the national flower. The species was originally quite common but now is found mainly in isolated or hard to reach places. The flower is very popular in cultivation and cannot be considered endangered. However, in the wild it is no longer widespread.

In 1930, it was estimated that there were approximately 3250 km² (2019 square miles) of cloud forest in Verapas suited to *L. virginalis*. By 1970, only 1000 km² (621 square miles) remained, and the lycaste populations were scarce. By 1990, optimistic estimates reduced the habitat to 165 km² (102 square miles), and



Guatemala: *Lycaste virginalis* ‘Golden Gate’

the few remaining habitats had become closely guarded secrets. Today, the orchids have succumbed to forest clearing and over-collection. Widespread use of insecticides in Central America, with blanket spraying of Malathion, has reduced the bee pollinator population to the detriment of orchids. Attempts have been made to limit insecticide use, especially in nature preserves. The country is now focused on saving the plants, and extinction is less likely. In cultivation, *Lycaste virginalis* is evergreen and should not be allowed to dry out completely even if it loses its leaves. In general, leaves do not last more than one year. Repot it in the spring when the growth is one-two inches (2.5- 5 cm) tall. It is easy to grow.

Belize and the Black Orchid

It’s not really black, but the “Black Orchid” is what the people of Belize call their national flower, *Prosthechea cochleata*. Formerly known alternatively as *Encyclia cochleata*, *Anacheilium cochleatum* and *Epidendrum cochleatum*, the Clamshell Orchid or the Cockleshell Orchid, is more purple than black. In Mexico, where it is common, it is called “Pulpo.” This epiphytic, sympodial New World orchid is native to Central America, the West Indies, Columbia, Venezuela, and southern Florida. The unusual flower is upside down or non-resupinate, with the flower lip forming a hood over the column at the top. Most forms of the species have one anther (male part), but the endangered Florida variety, *Prosthechea cochleata* var. *triandra*, has three anthers. This adaptation for self-pollination is important since an appropriate pollinator is absent in Florida.

It is common in cultivation and is prized for its



Belize: *Prosthechea cochleata*

unusually shaped flowers and long-lasting, continually blooming raceme. It can bloom sequentially and continuously for months with two to four flowers open at a time. The spike should not be cut off until all the blooming is finished. The lip of the orchid can be anywhere from near-black to white with gold stripes. There is also an *alba* variety of the species which is prized. The petals and sepals are generally a very pale green color and sometimes twist slightly.

There are several popular hybrids with the most popular being *Prosthechea* Green Hornet, a cross between *Prosthechea cochleata* and *Prosthechea trulla*. It is a vivid green color and has a larger flower than its parents, between two-three inches (5-8 cm).

Honduras and Everyone's Favorite Parent

The rose was the national flower of Honduras from 1946-1969. Because the rose is not really native to Honduras, the National Congress in 1969 replaced it with *Rhyncholaelia digbyana* (syn. *Brassavola*), an orchid of exceptional beauty, vigor, and distinctiveness. At the same time, steps were taken to protect the national orchid from commercialization. Schools were encouraged to teach orchid cultivation and to preserve orchid knowledge. The plant was first brought into flower in England in 1845 by Edward St. Vincent Digby, and the botanist John Lindley named it in his honor as *Brassavola digbyana*. It was subsequently moved to the genus *Laelia* until 1918 when Rudolph Schlechter determined it belonged to a closely-related but separate genus and should be called *Rhyncholaelia digbyana*. It is the most commonly used *Brassavola* parent—the “B” in orchid hybrids that start with “Bl.” or “Blc.” It con-



Honduras: *Rhyncholaelia digbyana* 'Mrs. Chase'

tributes its famously frilly lip, large flower size and delicious lemony fragrance to its many offspring.

Worth growing for itself alone, this orchid blooms in summer with large, fragrant, greenish-white flowers and a spectacular lacy lip. It is thought to re-bloom best with reduced watering and fertilizing after flowering. Growing in warm and cool locations, the epiphytic plant flourishes from the Yucatan, Campeche and Quintana Roo states of Mexico to Belize, Honduras, Guatemala, and Costa Rica.

Costa Rica and the Easter Orchid

Costa Rica adopted the purple orchid or “guaria morada” (*Guarianthe skinneri* [syn. *Cattleya skinneri*]) as their national flower in 1939. “Guaria morada” comes from a Native American language and means “purple-red flower that grows on the tree.” It has been a treasured part of their lives for centuries. The locals tie them to trees, attach them to tile roofs, and form dense masses of the flowers along the tops of their adobe walls. At religious holidays, whole trunks of sabal palms were covered with the plants. This lovely small-flowered *Guarianthe* produces an abundance of rose-lavender or, rarely, white flowers just in time for Easter. The “campesinos” cherish the flowers, and it is associated with the beauty of Costa Rican ladies. According to the website of Costa Rica:

“The “guaria morada” brings good fortune and good luck. It brings union and family understanding and channels the best cosmic experiences. It evokes peace and love as well as hope for the future. Its flower does not have a special fragrance because it is filled with dreams to be accomplished.”

Quite a resume for a native orchid! A well-known Costa Rican song celebrates this national flower.

On the tile on the earthen wall
Her petals wave gently
The beautiful *guaria morada*,
Flower of this sacred land.
When night falls,
And the golden sparrow sings its song,
She glitters like a star,
Dangling from the branches,
On the tile on the earthen wall
The *guaria morada*
Is the most beautiful of national flowers.
She symbolizes all that is praiseworthy
And like the rosy clouds at sunrise
Opens her arms to shelter Costa Rica.

Costa Ricans were pleased when *C. skinneri* (*guaria morada*) was moved into a new genus in 2003, *Guarianthe*, which reflected the native name for their beloved national flower. Based on phylogenetic studies of nuclear DNA sequence data, four orchid species were moved into the brand new genus—*Cattleya aurantiaca*, *Cyp. bowringiana*, *Cyp. patinii*, and *Cyp. skinneri* became known as *Guarianthe aurantiaca*, *G. bowringiana*, *G. patinii*, and *G. skinneri* — yielding all sorts of interesting new hybrid names.

Guarianthe skinneri was discovered in 1836. It was described by English botanist James Bateman in 1837 in *The Orchidaceae of Mexico and Guatemala*. Although Bateman had never been to those countries, his friendship with George Ure Skinner, who ran a trading company in Guatemala, provided him with rich access to orchid specimens. While still a student at the Natural History Museum at Manchester, Bateman noticed the bird specimens from Skinner. After writing him for orchid specimens, Bateman received box after box of precious orchids from the collector for more than 30 years. The bounty was so plentiful that the commercial orchid company James Veitch dedicated a whole greenhouse to the orchids that Skinner shipped. So many came in that a specimen of *Gur. skinneri* could be found in every collector's greenhouse. Bateman ignited his orchid passion and wrote of Skinner:

"In pursuit of this object (collecting orchids), there is scarcely a sacrifice which he has not made or a danger or hardship which he has not braved. In sickness and in health, amid the calls of business or the perils of war, whether detained in quarantine on the shores of the Atlantic or shipwrecked on the rocks of the Pacific, he has never suffered an opportunity to escape him of adding to the long array of his botanical discoveries."

Skinner introduced almost a hundred new orchid species into cultivation in Britain including *Lycaste virginalis*, *Barkeria skinneri*, *Guarianthe skinneri*,



Costa Rica: *Guarianthe skinneri*

Rhynchostele uroskinneri, *Mormodes skinneri*, *Cuitlauzina pulchellum* (syn. *Osmoglossum*), *Rossioglossum grande*, *Guarianthe aurantiaca*, *Trichocentrum cavendishianum* (syn. *Oncidium*), *Rhynchostele bictoniensis* (syn. *Cyrtorchilum/Odontoglossum/Lemboglossum*), and *Oncidium leucochilum*.

Costa Rica was once an orchid kingdom built by nature, but now orchids like *G. skinneri* are increasingly rare in the mountains. The current population explosion has forced farmers to convert forest to pastures. The forests are set on fire, and the orchids go up in smoke, too. Costa Rica is usually held up as a "green" country, but the numbers for deforestation are alarming. In 1940, the country still had 67 percent forest cover. By 1983, it had only 17 percent forest cover with the only forest remaining in rugged and remote mountain areas. Five orchids in Costa Rica are nearly extinct—*Gur. skinneri*, *C. dowiana*, *Psychopsis krameriana*, *Trichopilia suavis*, and *Peristeria elata*. Sometimes, thankfully, when farmland was cleared, a few trees were often left—a haven for orchids. The trees, however, are now old and dying, and there are no plans to replace them. This habitat destruction, in addition to illegal collecting, has severely threatened *Gur. skinneri*. Increasing numbers of natives have never seen orchids in the wild. The director of the Botanical Area of Bolivar Park, Gustavo Vargas, said, "Even I have never seen *guaria morada* in its natural setting." Happily, however, in 2004, with the aid of Taiwan, many orchids have begun to reappear in their homeland. (Orchids around the world are concentrated in places at around 30 degrees latitude, the latitude of both Taiwan and Costa Rica so they can share knowledge.) Agricultural technicians from Taiwan, along with the Costa Rican government and local flower growers, transplanted the first group of propagated orchids in national parks. For example, the Simon Bolivar National Zoo and Botanical Gardens, located in the suburbs of San Jose,

now has 145 varieties of flowers native to Costa Rica and is the only place in the nation to have the national flower. It has been planted on tree after tree, and many children have seen it for the first time in their lives.

In 1990, the government established ministries for natural resources and the environment. One-quarter of all the remaining forest was made into ten protected areas and 24 national parks with 50,000 square kilometers of land. The Lancaster Botanical Gardens collects orchids and has introduced into their collection, 1,000 varieties of native orchids culled from felled trees. Any orchids that are confiscated from illegal collecting are also planted there. This new respect for conservation will hopefully keep the beautiful orchids blooming in their native land.

The Dove Orchid of Panama

Luxuriantly blessed by countless orchids, Central and South Americans have naturally most often chosen orchids as their national flowers. None is more beautiful than *Peristeria elata*, known as the Dove Orchid or Holy Ghost Orchid, national flower of Panama. The name for this genus was taken from the Greek word *peristerion* meaning "dove" because the inside of the column forms a perfect dove with reddish spots on its wings. The sequentially blooming plant has cupped, waxy, white, fragrant, two-inch (5 cm) flower. Found in the tropics from Costa Rica and Panama south to Peru and Brazil, they can be terrestrial or epiphytic. In Panama, they are terrestrial and warm-growing in loamy soil and humus pockets among rocks at the edges of hardwood forests. Four or five massive pleated leaves are borne at the top of pseudobulbs that can grow as large as softballs. Flowering in late spring, the inflorescence can grow to as much as four feet (1.2

meters) long and bear as many as 20 stunning, fragrant flowers. In a theme that recurs over and over with breathtaking orchids, the plant has been over-collected in its native habitat and is now listed as an Appendix I species under CITES protection (the most endangered plants among those CITES-listed). While endangered in Panama, the species is still apparently safe in Colombia.

If you are able to obtain the orchid legally, the plants do well in cultivation. Because in its native habitat, trees lose their leaves in the fall, the Dove Orchid gets full sun during the dry, cool winter. Therefore, it requires bright light and a moderate dry rest to flower well. When the plant is in active growth, it appreciates lots of water and fertilizing in a well-draining mix as the emerging growths rapidly lengthen. When the leaves stop growing in length, reduce water with no fertilizing to the point that there is not too much bulb shriveling. Too much watering will encourage leaf growth and retard flowering at this point. It appreciates a drop in temperature during its rest. Some authorities say that it needs a tight fit in its pot. This is surely a magnificent national flower.

Columbia and Its Millions of *Cattleya trianaei*

The national flower of Columbia is *Cattleya trianaei*, thought by some to be the most beautiful orchid in the world. It is treasured in the country, and every Columbian has his own collection of special varieties. The cattleya expert A. A. Chadwick has remarked that Medellin, Columbia, is famous first for its *Cattleya trianaei* and only second as home of the cocaine cartel. It is no wonder. Blooming in winter when color is needed



Panama: *Peristeria elata*



Columbia: *Cattleya trianaei* 'Pink Gem'

most, the orchid combines all that is best in the *Cattleya* genus. It possesses the greatest range of colors, with lovely pastel shades, and varieties with flares, feathering in the petals as well as a glistening texture. Not only is it magnificent in form and color, but its blooms often last more than five weeks. It is a very vigorous grower making two growths a year, one right after the other, blooming on both growths for double the pleasure. It is what most people think of when they think of an orchid. It is a winner in every respect.

In 1851, the Columbian botanist Jose M. Triana found large numbers of the orchid in the eastern Cordillera and sent them back to the Belgian orchid man Jules Linden who, absolutely captivated, soon sold it in his orchid catalogue for 150 francs each, \$3,820 in today's dollars! Linden said the species was dedicated "to that erudite and modest author of *Flora Columbiana*, Jose M. Triana." This was Linden's favorite orchid, and he promoted it vigorously. He featured it at flower shows and produced a special exhibit of it at the Brussels Zoological Gardens where he displayed 240 different clones with over 900 flowers! Linden pictured 41 different clones on 28 full-color plates in his famous *Lindenia*, including on page eight, a beautiful double page spread.

Everybody wanted one of these gorgeous orchids. The world could not get enough, but luckily, the species was widespread in Columbia and, for a time at least, Columbia could keep up with the demand. At one time, there must have been hundreds of thousands, perhaps millions of the plant. Tremendous demand for this Christmas orchid resulted in overseas orders for 5,000 or more at a time. The forests were ransacked with hundreds of thousands of plants being ripped out. Numbers have been depleted although no one is sure if it is on the brink of extinction because of the lack of an adequate orchid census, (Harold Koopowitz 2001). In 1939, Norman MacDonald published a book, *The Orchid Hunters: A Jungle Adventure*, glamorizing commercial orchid collection and detailed the difficulties he had finding fresh sites containing the cattleya. Despite this, he naïvely maintained wild nature was there to exploit and that there was no great need for conservation. His only nod to conservation at all was the admonition to only pluck plants with more than eight leaves. Most of the orchids wound up in the dump. The cut-flower growers of the 1930s and 1940s imported plants, grew and flowered them for a year, and then just threw them out. They could still make a profit, but the toll on the wild was tremendous. This naïve attitude that orchid resources were limitless led to unnecessary and unsustainable orchid waste.

Venezuela and the Flor De Mayo

In Venezuela, *Cattleya mossiae*, known as Flor de Mayo, replaced another orchid, *Catasetum pileatum*, as the national flower in 1948. The darling of Venezuela received quite an honor in having been chosen since



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Venezuela: *Cattleya mossiae* var. *coerulea*

Venezuela boasts eight magnificent and impressive unifoliate (one-leaved) cattleyas including *C. lueddemanniana*, *C. percivaliana*, *C. gaskelliana*, and *C. jenmanii*.

Springtime is *C. mossiae* time, and it is in bloom for Easter and Mother's Day. The second cattleya to be discovered, it caused a sensation when it was introduced to the horticultural world in Europe in 1836; this was fifteen years after John Lindley had established the *Cattleya* genus with *C. labiata*. It has large, showy flowers with four or five flowers per spike and multiple leads. A single plant can produce 20 flowers or more. William Hooker, in his original description of the species called it "the most magnificent of all the orchidaceous plants." The first plant to reach Europe was sent to George Green in England by a Venezuelan friend; he gave it to Mrs. Moss who bloomed it. She sent the flowers and her own pencil sketch to William Jackson Hooker who described it as a new species, named for her. The flowers she sent were a stunning eight and one half inches (22 cm) across with a lovely rose-lavender color and a strong fragrance.

This plentiful orchid was imported in large numbers into Europe. It was one of the most abundant of the large-flowered cattleyas in the wild, and hundreds of thousands were also imported into the United States. There were enough alba forms of *C. mossiae* that Frederick Sander could tell his collectors to include a case or two with every shipment. In contrast, only one or two alba plants were found in most other large *Cattleya* species in over 100 years of collecting. In spite

of all of this, it is still one of the most common species in the wild today.

It became the darling of the cut-flower industry in the 40s and 50s. Unlike *C. labiata* which was rather scarce, *C. mossiae* was plentiful enough so that anyone with enough money could buy one. It was the favorite for spring dances, graduations, Easter, and Mother's Day for years. At the height of the cut-flower orchid era, *C. mossiae* 'Mrs. J.T. Butterworth' sold for \$10,000. Its petals measured nine and one half inches (24 cm) across and it was the only *C. mossiae* plant to receive an FCC/AOS until the end of the century.

Almost all the good spring cattleya hybrids today have *C. mossiae* in their background, including the very famous *Lc. Canhamiana*, a primary hybrid with *Cattleya purpurata* (syn. *Laelia purpurata*), known for years as the bridal orchid. In the 1930s, Thomas Young in Boundbrook, New Jersey grew more than 10,000 of the semi-alba hybrid in eight to ten inch pots (about 150,000 flowers) yet could not keep up with the demand.

Cattleya purpurata: The Unofficial National Flower of Brazil

Brazilians love their *Cattleya purpurata* (syn. *Laelia purpurata*). The official national flower is the bloom of the yellow-flowered shrub, *Tecoma chrysostricka*, but Brazilians voted for *Cattleya purpurata* with their hearts. Brazil reportedly boasts of over 2,300 native orchids but none is as beloved as this beauty. Collectors in southern Brazil hold very competitive orchid shows featuring only this beloved species in all its myriad of colors. There are more than 100 named forms in every color including delicate, vinicolor, white, semi-alba,



Brazil: *Cattleya purpurata*

concolor, flared and blue-colored as well as a variety of patterns and stripes within the lip. Some rare and unusual forms are jealously guarded and are never seen outside the country. Brazilians are passionate about this flower.

This large orchid usually grows in the canopy of tall trees although it can also be found on sand dunes and beaches in Brazil. Prevalent in Santa Catarina (where it is the official state flower), it grows in coastal Rio de Janeiro, Sao Paulo, and Rio Grande del Sol as well. The orchid can be up to two feet tall (.6 meters) with four or five flowers on a spike, sometimes as large as six to eight inches (15-20 cm) across. Although it does not have wide petals like *C. trianae* (and passes this along to its hybrids), it often makes up for this by contributing floriferousness and a brilliantly colored lip to its offspring.

It is the parent of the most famous orchid hybrid in history, *Cattleya Canhamiana* (*C. mossiae* x *C. purpurata*). This gorgeous beauty blooms reliably in June in the United States and is known as the "wedding flower." There were tens of thousands of these grown in the 1940s to satisfy the cut-flower trade. The semi-alba form was pictured on the cover of the AOS Bulletin for December 1946 with four full-color pages of the hybrid in wedding bouquets, corsages, and hair ornaments. This "wedding orchid" showed the purple lip it had inherited from its *C. purpurata* parent.

Chadwick describes this species as having a "bad case of botanical heartburn" that lasted for more than 150 years. In 1852, Lindley described the Brazilian orchid as *Laelia purpurata*, because, although it resembled a large-flowered cattleya, it had eight pollinia rather than the four that cattleyas normally have. Lemaire disagreed and, deeming it a cattleya, described it as *C. brysiana*. In 1854, Beer described it as *C. purpurata*. Although Lindley was convinced that the presence of either four or eight pollinia in the orchids indicated two different genera, Veitch felt they should all be in the genus *Cattleya*.

Recent DNA studies confirm that it is a cattleya. It is now known that the Brazilian laelias are a distinct group from the Mexican laelias and don't belong in the genus *Laelia*. This includes *L. purpurata*, *L. crispa*, *L. lobata*, *L. grandis* and *L. tenebrosa*, all formerly known as "cattleya-like laelias." These Brazilian laelias are really large-flowered cattleyas and are now officially grouped together with other cattleyas which have between four and eight pollinia. Although it is officially now *Cattleya purpurata*, its traditional name still persists.

A cherished and valued plant, the orchid is now over-collected and in danger. The Atlantic forests of Brazil were a center of orchid diversity with important plants like *C. labiata*, *C. purpurata*, and *Cattleya coccinea* (syn. *Sophronitis grandiflora*). Less than 2% of this original rainforest now exists. The lowland forests are nearly all gone, and there are only some patches between the plantations and fields. Habitat loss threatens Brazil's beautiful native orchids.



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Seychelles: *Angraecum eburneum*

The Seychelles and the Tropic Bird Orchid

The national flower of the Seychelles, *Angraecum eburneum* subsp. *superbum*, called “Orkid payanke,” or “Tropic Bird Orchid,” dazzles from mid-autumn through winter with its clumps of waxy apple-green and white flowers. Also called the “Magnificent Orchid,” its long nectaries attract hawk moth pollinators with strong fragrance at night. One of at least thirty orchids flourishing on the island paradise, *Angcm. eburneum* is able to survive on the granitic slopes found on many of the 100 small islands. Some of the amazing granite boulders are as big as houses. The Seychelles are a little-known tropical wonderland of coral and granite in the Indian Ocean seven degrees south of the equator and about 1,000 miles south of the coast of Madagascar.

Angraecum orchids are most often found in hot, damp tropical woods in Madagascar, Africa, and the Indian Ocean islands at elevations below 1,200 feet (366 meters). The flowers are long-lasting and grow from the leaf axil on long, stout, multi-flowered racemes. They bloom best with cattleya-like light levels and warmer temperatures.

The Seychelles pride themselves on their “green tourism” and have set aside 46 percent of their land as

national parkland. Despite this, apart from vanilla, all their orchids are threatened. There has been a habitat loss because of the growth of agriculture and the introduction of alien invasive plant species. Introduced animals like deer and pigs eat the orchids or uproot them and change the native vegetation. In addition, plants have been over-collected. The government-created nature reserves, however, should help conserve what is left of the native orchids.

The Moon Orchid of Indonesia

Indonesia had no national flower until June 5, 1990 when it got three national flowers, a record for any one country. To honor the World Environment Day, the government officially chose as national flowers the Moon Orchid (*Phalaenopsis amabilis*), Melta (*Jasminum sambac*), and Rafflesia (*Rafflesia arnoldi*). They were all chosen for different reasons. The Moon Orchid (also called Enchanting Flower and angrek bulan) is the longest blooming orchid, according to the Indonesians, and represents the purity of their hearts. *Jasminum* symbolizes the beauty of a girl and is commonly used in religious ceremonies. *Rafflesia*, on the other hand, has the largest individual flower on earth

Indonesia has typical tropical vegetation with many unique varieties on its 18,000 islands. It has the second largest biodiversity on earth and the second longest shoreline in the world. It is estimated that there are approximately 40,000 species of flowering plants including some 5,000 species of orchids. It is believed that Borneo alone has at least 2,000 species of orchids, the richest island in numbers of orchid species in the world; Sumatra has 986 orchid species and Java has 971. The province of Papua (West New Guinea) has more than 1,000 orchid species, mainly bulbophyllums and dendrobiums.

Phalaenopsis amabilis was first described by Linnaeus in 1753 as *Epidendrum amabile* based on specimens col-



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Indonesia: *Phalaenopsis amabilis*

lected by Peter Osbeck in Java (where he said only princesses were allowed to wear it!). In 1814, Roxburgh declared it a cymbidium. In 1825, it was given its present name, *Phalaenopsis amabilis*, by C.C. Blume. *Amabilis* comes from the Greek for “nice” or “pleasant.” Blume coined the genus name *Phalaenopsis* from the Greek word for moth, which Blume thought it resembled. Its petals and sepals are a milky white marked with yellow and red. There is a yellow callus with brown spots. The orchid often is found naturally growing near the ocean on *Diplodiscus paniculatus*, commonly called the balboa plant. *Phalaenopsis amabilis*, the largest flowered of the genus, is the parent of many modern phalaenopsis hybrids.

The orchids of Indonesia are endangered as a result of the loss of natural habitat from fire, forest damage, and illegal logging. In Borneo, gold mining and illegal burning has led to the extinction of hundreds of orchid species according to the Global Forest Watch 2002 report. Indonesia has one of the most dramatic forestland losses in the world. At this rate of loss, Borneo’s forest could soon vanish completely. In addition, illegal collecting and selling by orchid hunters is leading to alarming losses. Attempts are being made to identify and inventory all the orchid species and cultivate those that are vulnerable or endangered, a huge task.

Singapore and its Hybrid Orchid

Singapore selected a hybrid orchid, a cross between the Burmese *Papilionanthe teres* (syn. *Vanda teres*) and the Malayan *Papilionanthe hookeriana* (syn. *Vanda hookeriana*), known as Vanda Miss Joaquim (*Papilionanthe* Miss Joaquim according to the World Checklist of Selected Plant Families), as their national flower. It is also known as the Singapore Orchid, the Wah Kim orchid, and the Princess Aloha Orchid. It has become one of the most popular orchids in gardens in Singapore, the Philippines, and Hawaii. In Singapore, many people have at least one bed of *Papilionanthe* Miss Joaquim.

In 1947, the orchid was chosen as the emblem for the Progressive Party and in 1957 as the crest for the Malayan Orchid Society. In 1981, from a field of 40 contenders, this flower was selected as the national flower. There were two finalists, the *Papilionanthe* Miss Joaquim and *Arachnis* Maggie Oei, both named after prominent Singapore ladies. Maggie Oei, the more colorful of the two ladies was a dancer in a dance hall and a bar hostess who had a close friendship with a politically active lawyer whose hobby it was to grow orchids. Her orchid was placed on the one-cent coin in Singapore, but Agnes Joaquim won the big prize. Her orchid became the national flower.

Born to a family which took a keen interest in horticulture, the gentle pious Agnes was said to have found this hybrid in her garden. In 1899, she won First Prize with it as the rarest orchid in an orchid show, and she died three months later. She never saw it spread



Singapore: *Vanda* Miss Joaquim (*Papilionanthe* Miss Joaquim)

throughout the world. There is still heated controversy as to whether she actually bred the hybrid herself or simply found it in her garden. The controversy hinges on three words in the original description of the hybrid by Henry Nicholas Ridley, director of the Singapore Botanic Gardens at the time, “Miss Joaquim, a lady residing in Singapore, well-known for her success as a horticulturist, *succeeded in crossing...*” (italics added). This suggested that she made the cross deliberately.

Joseph Arditti, famed orchidologist, wrote an exhaustive essay on the subject. He concluded:

“The facts we presented in this survey and the historical and biological evidence leaves very little doubt that *Vanda* Miss Joaquim was a natural hybrid. Both *V. teres* and *V. hookeriana* were growing in the garden of Miss Agnes Joaquim, and the two are pollinated by carpenter (*Xylocopa*) bees. The bees can still be seen visiting *Vanda* flowers which set fruit without human intervention. Natural hybrids of orchids in general and *Vanda* in particular are well known...Additionally, there is no evidence to support the view... that the cross which produced *Vanda* Miss Joaquim was made intentionally and the seeds were germinated horticulturally by Miss Joaquim. That is why most knowledgeable orchidists and all orchid scientists subscribe to the idea that *Vanda* Miss Joaquim, the National Flower of Singapore, is a natural hybrid.”



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Australia: *Dendrobium phalaenopsis* var. *schroederiana*

Queensland and the Orchid with Many Names

When preparing for its Centenary in 1959, Queensland, Australia held a public beauty contest for the native species best suited to be its new floral emblem. Newspapers polled their readers, and top contenders included the Cooktown Orchid (*Dendrobium bigibbum*), Red Silky Oak (*Grevillea banksii*), Umbrella Tree (*Brassaia* now *Schefflera actinophylla*), and Wheel of Fire (*Stenocarpus sinuatus*). Entries had to be an easily cultivated, native species confined to Queensland, decorative, distinctive in appearance, and colored close to the State color, maroon. Eventually 13 species were submitted, and 10,917 entries were submitted by the public. Cooktown Orchid was the winner by thousands of votes. It is depicted on the 25-cent stamp of the State Floral Emblem set issued on July 10, 1968 designed by R. and P. Warner and depicted again in 1998 on a \$1.20 stamp designed by Cathleen Cram.

The genus name *Dendrobium* comes from the Greek *dendron* meaning "tree" and *bios* meaning "life" because of its epiphytic growth habit. The species name *phalaenopsis* comes from the Greek *phalaina* meaning "moth" because of the flower's supposed resemblance to a moth. There are over 1,400 species in the genus occurring in south and eastern Asia and in the southwest Pacific. The common Australian name of *Dendrobium bigibbum*, the Cooktown Orchid, refers to

the northern Queensland town named for the explorer, Captain Cook. The species occurs naturally in a limited area from the Endeavor River Valley west of Cooktown south to the Font Hills in far northern Queensland. In the wild, it grows in semi-deciduous vine thickets and vine forests and in exposed situations attached to tree trunks such as the paperback melaleucas in savannah woodlands. Habitat alteration and over-collecting have made this species rare or extinct in some places especially in the southern part of its range.

It is considered Australia's showiest orchid species and has been easily cultivated in greenhouses since the nineteenth century. It is so common in species and hybrids that most readers will probably have some of this lovely plant. It is easily propagated from seed, and some plants flower within a year of deflasking in tropical conditions. Nursery plants are inexpensive to buy, and cultivated plants have much larger flowers than those in the wild. Growing recommendations include generous watering when growth is active with less watering in the winter, just to prevent shriveling.

Robert FitzGerald, Surveyor General of New South Wales, described *Den. bigibbum* in 1880. He recorded that "it was obtained near Cooktown, Queensland." That year, he published a beautiful color plate of an orchid that showed *Dendrobium bigibbum* which does indeed grow in Cooktown.

It is no wonder that so many beautiful places have chosen orchids as their symbols. They are fitting symbols of a changing world and inhabit the beautiful places. It is our hope that these magnificent flowers will be protected so that generations to come will continue to be able to take pride in their natural treasures.*

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