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Cattleya guttata

The Coastal Beauty

TEXT AND PHOTOGRAPHS BY ALEK ZASLAWSKI

[1] Author Alek Zaslawski with *Cattleya guttata* along the northern Espírito Santo State coast, Brazil.

[2] *Brassavola tuberculata* (white flowers) with *C. guttata.*

[3] The coastal type of *C. guttata* flowers by mid March, summer in the Southern Hemisphere. Many specimens form bunches more than 9 feet (3 m) in diameter.

WHEN MY FATHER STARTED GROWing orchids in 1953, his first one was *Cattleya guttata*. Today, that specimen is still in our collection. We live by the coast in Vitória, Brazil — an island with many small sandy beaches and granite rock formations — and at that time plants of *C. guttata* were found growing naturally in his back yard. This species was common in trees near the coast, yet it received little attention from orchid growers. In many parts of Vitória and on smaller islands, *C. guttata* would thrive on trees, sometimes within a few feet of the water's edge.

When searching for *C. guttata*, it's often rare to find flower colors other than the typical ones — lilac lips and spotted brown sepals and petals. But in 1965, my father, Wladyslaw, was surprised to see a plant with different flowers growing naturally in his neighbor's wood fence. He asked if he could take the cattleya home, to which he received a smile and a "yes." This was the first coerulea form, with green-spotted sepals and petals and blue lip.

Today, we have a collection of 60 to 70 plants of *C. guttata* showing flower color variations and good shapes that were gathered by my father during his years as a hobbyist. Sadly, the plants that once thrived in nature around our city disappeared, taken by progress and concrete.

Cattleya guttata occurs in the central part of the Brazilian coast, usually not far from the Atlantic Ocean. The distribution ranges from southern Bahia State to Rio de Janeiro State. Some growers report that plants can be found as far south as Santa Catarina State and as far inland (east) as Minas Gerais State, where the plants occur at lower altitudes.

Plants of *C. guttata* occur at altitudes ranging from sea level to 1,000 feet (300 m). Farther inland, the plants generally are found in river basins where temperatures are warmer due to the lower altitudes and high humidity. Plants grow on trees where they receive plenty of filtered light. In some cases, plants of *C. guttata* occur on rocks inside the Atlantic rainforest.

The southern limit of the distribution range of *C. guttata* is poorly defined. The habit and flowers of *C. guttata* and another species, *Cattleya leopoldii*, listed under the name *Cattleya tigrina* in the World Monocot Checklist, from southern Brazil, are similar, causing confusion among orchid growers. I consider both to be distinct species, but looking at just the flowers sometimes does not help to distinguish one from the other. *Cattleya leopoldii* usually has larger lips compared with the narrower lips of *C. guttata* and *C. leopoldii* also has better flower shape, but this is not a rule to identify both species.

The best ways to distinguish these two species are flowering season and flower fragrance. *Cattleya leopoldii* flowers in November and December (summer in the Southern Hemisphere) while the coastal *C. guttata* flowers by mid March (end of summer). There is also the inland type of *C. guttata* that usually has smaller flowers. It blooms approximately two to three months after the coastal one.

On our plant tags, we use only the names *C. guttata* and *C. leopoldii*. I think that the discussion of defining the species limits will last for a long time, certainly until a researcher spends time examining plants *in situ*, mapping both species, their various characteristics and precise areas of occurrence.

HABITAT IN THE RESTINGA A few years ago, a friend told us about a beautiful habitat in which *C. guttata* grows. The plants were not on trees but in the sand near the sea. This place has a type of vegetation called *restinga*, composed of shrubs, bushes and cacti thriving in the nutrient-poor beach sand.

We knew that this species also occurred in the restingas in Rio de Janeiro State and south of our hometown Vitória, so we had to check this information personally. At the end of March, we left home early one morning and drove for two hours on paved roads, then for an hour and a half on dirt roads and finally another 30 minutes through the sand in a 4×4. When we arrived at the habitat and witnessed the plants' profusion, we almost fell to our knees. It was spectacular.

Only 660 to 1,000 feet (200 to 300 m) from the sea, specimens of *C. guttata* in full bloom crowded an area of 10 × ½ miles (16 km × 800 m) or 4.9 sq miles (12 sq km).

We have been to many orchid habitats where we have seen many plants blooming, but nothing compared with this. There were thousands of plants of *C. guttata* in full flower, growing together with *Epidendrum secundum*, *Epidendrum denticulatum*, *Brassavola tuberculata*, *Catasetum discolor* and *Vanilla* sp.

In most cases, seedlings are attached to the base of the trunks of the shrubby vegetation. These islands of vegetation are usually 1 to 2 feet (.3 to .6 m) tall. The seedlings are protected from direct sunlight and also receive more humidity in this protected environment. Their roots receive nutrients from the decomposing

materials mixed with sand just a few inches below. As the plants grow taller, the tops of the pseudobulbs emerge from the vegetation. Then, the leaves start acting like umbrellas, receiving full sun all day long.

Many plants form bunches of more than 9 feet (3 m) in diameter. The pseudobulbs can reach more than 2½ feet (80 cm) high. It's not uncommon to find a strong plant with three leaves per pseudobulb or, in rarer cases, even four leaves. On vigorous plants, inflorescences can have 20 to 30 flowers, although I have counted 44 flowers on a single spike. The flowers are approximately 3½ inches (9 cm) in diameter.

The flowers of this species are not long lasting. In their native habitat, they are rapidly degraded, mainly by rain and strong winds. Inside a greenhouse, however, they can last for 10 to 15 days.

Some plants of *C. guttata* were growing directly on the sand in full sun, without the protection of vegetation. Under these conditions, the plants are smaller and suffer more from the heat and longer periods without rain. *Epidendrum denticulatum* and *Brassavola tuberculata* were also in full bloom, with the *Epidendrum* forming "islands" and the *Brassavola* forming large clusters.

NATURAL HYBRID A natural hybrid between *C. guttata* and *B. tuberculata*, called *Brassocattleya* ×*fregoniana* L.C. Menezes, can also be found, with great variation in colors.

[4] Plants of *Cattleya guttata* can be seen thriving side by side with this cactus (*Pilosocereus arrabidae*) along the coast.

[5] Within a small area, occasionally it's not difficult to find great differences in color among plants of *C. guttata*.

All orchid flowers are specialized in attracting a specific pollinator and we consider this intergeneric hybrid interesting and also rare. The reason is that *B. tuberculata* has smaller flowers, no attractive colors and a nighttime fragrance. In contrast, *C. guttata* has more attractive colors and the flowers are fragrant during the day so we can imagine that the common pollinator is active in the late afternoon and early evening or early in the morning to pollinate these two distinct plants.

On this trip, we walked extensively, every step of the way suffering from the heat and the intense sunlight. By the end of the day, we were exhausted, but did not want to quit walking, instead continuing our trek and admiring this great spectacle of nature. This location of *C. guttata* is remote, known only by fisherman, so this habitat was virtually untouched. Unfortunately, today many people are discovering this place and the plants are being collected indiscriminately. Cattle released by farmers in the surroundings are also eating the orchids. Another risk faced by the plants is the increasing number of people looking for new areas to build beach houses and also by the oil exploration that increases the value of land.


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IN THE WETLANDS In March 2007, we took off on another trip to explore for *C. guttata*, this time in a habitat that is completely different for this species. We planned our trip a few weeks in advance and drove to southern Bahia State, about four hours from home. Early the next morning, we departed by car for our orchid trip, which turned out to be an extremely pleasant outing. On the way, we started the day catching earthworms to be used as bait to catch a small fish called "piaba" (*Astyanax* sp). Later in the afternoon, we would use those small fishes alive for the real fishing in the main river, so our dinner depended on those earthworms.

To reach this habitat, we stopped near a narrow serpentine river and took a 30-minute boat ride to the north. The beautiful landscape was reflected in the water's mirrorlike surface. At the end of the trip, the boat had to find a small passage through the vegetation so it could reach the bank.

Once ashore, we started walking and, since the area was flooded, we had water almost to our knees. This wetland is permanently flooded by the river and has dark waters due to decomposing organic materials. The water level can increase during the rainy season and also from tidal influence. Open areas with grassy vegetation contrasted with 16- to 23-foot- (5- to 7-m-) tall trees full of bromeliads. It was uncomfortable to walk and progress was slow. A lack of reference points made it easy to get lost and after a few minutes we were completely disoriented (except for our guide).

This area is large and our guide told us that to reach the other side would take another two hours by boat. Thousands and thousands of adult plants and seedlings of *C. guttata* crowded the trees, making it difficult to see through the vegetation. The plants of *C. guttata* were tall, but not as robust as the ones that occur at the beach because they are protected from direct sunlight and have plenty of humidity all year long. There were fewer flowers per spike and some pendent roots were more than 5 feet (1.5 m) long, descending from the trees almost to the water's surface. Plants in bloom were more dispersed and there was no distinct variation in colors or shapes.

Although this place did not have the visual impact of the *C. guttata* at the beach, it's an extremely rich natural place and we consider it to be the largest-known concentration of *C. guttata* plants. Our guide told us that snakes, capybaras and alligators also inhabit this locale. We also saw species of *Vanilla*, *Catasetum* and *Brassavola* (probably not *B. tuberculata*). Later in the afternoon we were finally able to catch our dinner, a fish called *tucunaré* (*Cichla* sp.), known for its delicate meat.

CLIMATE AND GROWTH HABITS The climate conditions in Espírito Santo and southern Bahia State coastal areas are similar. Temperatures in

How to Grow Cattleya guttata

CATTLEYA guttata is a warm-growing plant. In cultivation, the plants benefit from constant air circulation and bright light (standard for cattleyas or slightly higher). Since this bifoliate cattleya has less storage capacity in its pseudobulbs than a unifoliate cattleya, take additional care when repotting or dividing. A safe size for a division is at least five pseudobulbs. Before dividing, always check to see if growth "eyes" are present. Divide plants during the growing season, right before new roots emerge from the new growths.

Use shallow clay pots with good drainage and a medium of tree fern or fir bark. For our plants, we use two parts pine bark plus one part granite rock. For larger plants, we use grades of both that are 1 to 1¼ inches (2.5 to 3 cm), and for smaller plants we use grades of ½ to ¾ inch (1.5 to 2 cm). When the divisions have been set into their new containers, make sure the plants are well supported in order to avoid movement and damage of newly emerging roots.

Fertilize weekly during the growing season and every two weeks when the plants are resting. Apply a general-purpose fertilizer, such as 20-10-20 or 20-20-20. Check also for calcium and magnesium, which are usually not present in correct quantities in most fertilizers. Avoid fertilizing recently repotted plants.

Provide humidity and increase watering during the growth phase. Always observe the pseudobulbs and increase watering if they start shriveling too much.

If you have plenty of space in your greenhouse for this large-sized plant, it is wonderful to grow. If you live in the tropics and already have other orchids outdoors, you can try this one too, attaching the plants directly to trees in your back yard or in clay pots that can be moved indoors during extreme weather conditions. To protect plants from midday direct sunlight, place them under a sparse tree that casts light shade, remember to fertilize and water as necessary.

You will not regret growing *C. guttata*. It's worth trying. — *Alek Zaslawski.*

summer can reach 98 F (36 C) during the day and 82 F (28 C) at night. In winter, minimum temperatures at night are 57 F (14 C).

In the Southern Hemisphere there is a drier season from July to mid September (winter) and a rainy season from October to January (summer). At the end of the dry season, *C. guttata* starts new growths and by mid March the plants bloom after a brief rest. Its flower sheaths are dry at this time, which is another characteristic that differentiates this species from *C. leopoldii*.

During the flowering season, it's common to have cooler nights, hot days and constant rain showers during the day. These conditions may vary from year to year. After flowering, the plants stop growing and concentrate their stored energy to form capsules. The capsules, or pods, usually open five months after pollination. However, we usually sow them within four months, before they open.

Alek Zaslawski developed a passion for orchids from his father and also from admiring these plants in nature, many times in spectacular landscapes. In 1991, he and his father began to produce orchids and now they own AWZ Orchids. He lives in Vitória, Brazil, where he is an active member of the local orchid society, Sociedade Espiritos-santense de Orquidofilia. (e-mail awz@awzorchids.com.br; Web site www.awzorchids.com.br).

[6] In the wetland, plants of *C. guttata* were tall, but with fewer flowers per inflorescence than those on plants near the coast.

[7] Thousands and thousands of adult plants and seedlings of *C. guttata* crowded the trees, sharing the space with a flora rich in bromeliads.

Cattleya guttata Variations on a Theme

PHOTOGRAPHS BY ALEK ZASLAWSKI


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[1] *Cattleya guttata* 'Rainha da Restinga'
[2] *Cattleya guttata* 'Rose Dream'
[3] *Cattleya guttata* 'Mangue Seco'
[4] *Cattleya guttata* 'AWZ' (green form)
[5] *Cattleya guttata* 'Edelweiss'
[6] *Cattleya guttata* var. *caerulea* 'Monte Verde'
[7] *Cattleya guttata* 'Guarany' (an unpublished form with a light blue lip)
[8] *Cattleya guttata* 'Vitória'
[9] *Cattleya guttata* 'Espiríto Santo'
[10] *Cattleya guttata* 'Labelo Manchado'

The plants pictured in this gallery were grown by Alek and Wladyslaw Zaslawski. Their collection of *C. guttata* was started by Wladyslaw in 1953.


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[11] *Cattleya guttata* 'Carnaval'
[12] *Cattleya guttata* 'Onça Parda'
[13] *Cattleya guttata* 'Interlagos' (an unpublished albinistic form)
[14] *Cattleya guttata* var. *caerulea* 'Lindo Azul'
[15] *Cattleya guttata* 'Anália'
[16] *Cattleya guttata* 'Graciosa'
[17] *Cattleya guttata* 'Pontal'
[18] *Brassocattleya* ×*fregoniana*, a natural hybrid between *Cattleya guttata* and *Brassavola tuberculata*
[19] *Brassocattleya* ×*fregoniana*
[20] *Cattleya guttata* var. *caerulea* 'Céu Azul'


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[21] *Cattleya guttata* 'Profusa'
[22] *Cattleya guttata* 'Esmeralda'
[23] *Cattleya guttata* 'Degredo'
[24] *Cattleya guttata* 'Linhares'
[25] *Cattleya guttata* 'Pétalas Manchadas'
[26] *Cattleya guttata* 'Pintosa'
[27] *Cattleya guttata* 'Iporá'

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