COLLECTOR'S ITEM

Cyrtorchis chailluana by Brenda Oviatt and Bill Nerison/All plants grown by
Botanical Ltd. and photographed by Brenda Oviatt

Beauty Amidst Tragedy
THERE HAS BEEN a great deal of media attention on West Africa recently, and it has caused us to reflect. A simple Google search of West Africa puts Ebola at the top of the list, followed by varying maps of what parts of Africa are actually considered to be West Africa. Regular visits to the website allAfrica.com yields very little positive news from the area. The top headlines feature Ebola, bombings of all sorts in Nigeria along with the violence of Boko Haram, the changing government political unrest and violence in Burkina Faso and more about Ebola. The positive news that reappears involves the Africa Cup — Cup of Nations — and that it will go ahead. With all the regional violence and tragedy, we decided to choose a special orchid from there to feature this month. Since it’s us, we picked an angraecoid, and there are MANY wonderful orchids in the region.

We chose Cyrtorchis chailluana, one of 18 species in the genus (World Checklist of Selected Plant Families, 2014), all of which are from sub-Saharan Africa. Cyrtorchis chailluana is from tropical West and Central Africa, and is recorded in at least 15 countries. As we looked over the list of those 15 countries, we realized how many of them are not safe for the people living there. In general, that means it’s even less safe for the plants and animals living there. As orchid growers, we believe that knowing information about the habitat where our orchids are from is important. It can increase people’s awareness of conservation and of the conditions (both environmental and sociological) in that habitat.

Cyrtorchis chailluana is the largest of the genus (both in plant and flower size). Most are “midsized” and there’s even one species that’s considered dwarf. The star-shaped flower is a consistent feature of all Cyrtorchis; differences are primarily the size of the flower and plant, length of the spur and foliage of the plant. We don’t know why Cyrtorchis aren’t more widely grown by orchidists, but suspect it’s because of their white flowers. Many times we’ve been asked about our angraecoids, “Don’t they come in purple?” White is clearly the dominant “color” but if you like fragrance, prepare to be amazed! Cyrtorchis flowers are sweetly scented, particularly in the evening.

While researching the habitat where Cyrtorchis chailluana grows in nature, we found that they are quite widespread in tropical West and Central Africa at a fairly specific elevation 3,770-4,100 feet (1,150–1,250 m). They are one of the orchids listed in A study of the distribution and diversity of the Family Orchidaceae on some selected lava flows of Mount Cameroon (Focho, Fonge, Fongod and Essomo, 2010). Even though they are found growing on lava flows, they’re more typically found as epiphytic herbs on trees and farm bushes and growing in secondary forests. Descriptions of collected plants consistently mention the white flowers that turn yellow or apricot with age, the evening fragrance and the brown flower bracts (see photos).

Cyrtorchis chailluana has been known by four main names since its “discovery.” It was first called Angraecum chailluana by Joseph Hooker in 1866. H.G. Reichenbach changed it to Listrostachys chailluana in 1885. Otto Kuntze changed it to Angorchis chailluana in 1891. Finally, in 1914 Rudolf Schlechter created the genus Cyrtorchis and transferred it there, where it has since remained. Cyrtorchis comes from the Greek words “kyrtos” (a swelling or curve) and “orchis” (orchi), most likely referring to the curved petals, or the curved spur, of these plants. The species chailluana was...
On a well-bloomed plant, a side view of the flowers with their long sweeping spurs (nectaries) is a beautiful sight.

The flowers seem to take forever to form! Notice the bract around each bud.

Then suddenly the buds pull away from the stem revealing their nectaries. The bracts are still a yellow-green color. Note also how much the long nectaries still have to develop before the flowers open.

Once the flowers have opened the bracts turn brown. Nectar can be seen in each spur.

Botanical illustration by John Nugent Fitch from Warner and Williams' Orchid Album (1887) of what was then called Angraecum chailluanum. Note the attention to detail in botanical illustrations of the day including the bilobed leaf apices, brown, dried floral bracts of mature, open flowers and the sharply angled seed capsule forming from the apical flower on the lower-most inflorescence.

named for its collector Paul Belloni Du Chaillu who became famous in the 1860s as the first modern European outsider to confirm the existence of gorillas.

“The plant we have now under consideration is a very beautiful species, and one that has much improved under the cultivators’ hands; it was originally sent home to the Royal Gardens at Kew by the celebrated traveler M. Du Chaillu, on his return from his courageous journey into the wilds of Western Africa, upon which occasion he made known the discovery of the savage Gorilla in the Gaboon district …. This species, being a native of one of the hottest and wettest parts of the world, consequently requires to be kept in the warmest house throughout the entire season, where the lowest temperature does not fall below about 65 F at night. It enjoys an abundance of sun and light, but yet a thin shading material should be used to break the direct influence of the sun’s rays during the middle of the day, and to avoid the effects of burning the leaves or to prevent them from turning yellow, both of which have a bad effect upon the plant … nothing dead, decaying, or sour being allowed to remain in contact with the plant or roots. (Williams 1887).”

We inherited our first Cyrtorchis in 1990 while living in Seattle. It was Cyrtorchis arcuata, mounted on a cork plaque. It thrived and bloomed, but perished during our multiple moves as we made our way back to Montana. It was a plant that we knew we’d need to replace. Now that we’re quite settled we’ve continued to add to our Cyrtorchis collection, though this is not always easy since very few of the species are available. We’ve grown many of the available ones the last 20 years, and have lost very few, which indicates they are rather hardy growers.

Only three or four species of Cyrtorchis seem to be commercially available. Since they aren’t widely available, there also seems to be a limit in awards and hybrids. Cyrtorchis chailluana has garnered just two AOS awards: a CBR in 1965 and an HCC in 1994. There are currently no registered hybrids involving Cyrtorchis chailluana, though Harold Koopowitz recently told us that he’s made a cross between it and Cyrtex arcuata; they are currently in flask. Hopefully you’ll be seeing them available soon! There are only four registered hybrids using any Cyrtorchis; all of which are intergeneric:
• Angraeeorchis Guinagacar = Cyrtorchis acuminata × Angraecum equitans
• Mystorchis Graffiti Soul = Cyrtcs. arcuata × Mystacidium capense
• Angraeeorchis Mad = Angraecum eichlerianum × Cyrtcs. arcuata
• Oeorchis White Star = Oeoniella polystachys × Cyrtcs. arcuata

CULTURE You will find sources of information for Cyrtcs. chailluana culture that refer to it as “cool to intermediate” growing and others as “warm to intermediate.” Referring back to the 1887 description of it being from the “hottest and wettest” part of the world, one must wonder! In our greenhouse it grows well in warm conditions during the spring and summer (up to 96 F [36 C] in the day) and cool conditions in the fall and winter (down to 55 F [13 C] at night). In other words, they seem to do well in a rather wide range of conditions. We provide them with plenty of early morning to midday light somewhere in the 1,000–2,000 footcandle range. Cyrtorchis chailluana occurs naturally in the equatorial regions of Africa and is not subject to the extreme changes in day–night length we experience in Montana. Even though it gets a mild dormancy in nature, like many of our other angraeoids from the equatorial zone, our plants get a more pronounced dormancy period. This amounts to a rest from water and fertilizer while maintaining good air circulation during our cold period in the winter. How pronounced the dormancy for your Cyrtorchis chailluana is will vary depending on where you live, though some dormancy is certainly preferred.

Unlike our other Cyrtorchis, we’re growing Cyrtcs. chailluana in pots. We use a bark-based medium in plastic pots. There are two main reasons for this. First, they become rather large plants, and when growing lots of them, they are simply too large to do this well mounted. If we had just one specimen, we would grow it mounted on a large cork plaque to display its sweeping foliage and gracefully presented flowers. This species would also do nicely in a basket. When grown on a bench, they simply aren’t displayed to our satisfaction. Secondly, now that we’ve kept them in pots for so long, the larger ones have grown roots through the drain holes of the pots, and the roots have branched. When they began to bloom they became side-heavy, so we placed the plastic pots into oversized terra cotta pots to keep them from tipping. Now those roots have attached to the terra cotta and are going through the drain holes.
Cyrtorchis species
all species in Africa

* acuminata  
* arcuata  
  * subsp. arcuata  
  * subsp. whytei  
* aschersonii  
* brownii  
* chailluana  
* crassifolia  
* erythraeae  
* glaucifolia  
* guillaumetii  
* hamata  
* henriquesiana  
* injoloensis  
* letoceyi  
* monteiroae  
* neglecta  
* praetermissa  
  * subsp. praetermissa  
  * subsp. zuluensis  
* ringens  
* seretii  

[8] Cyrtorchis chailluana has undulate leaf edges; the plants themselves are pretty!
[9] The seed capsules are still ripening on the plant when the next bloom occurs.
[10] Though our plants are growing in pots, we feel mounted plants show off the sweeping foliage and gracefully presented flowers better.
and are branching. It’s a vicious cycle. As we have now waited this long, we are allowing our older plants to “do their own thing” and are enjoying the experience of observing their growth habit. We know this approach to culture upsets some people, but to others it will almost appear “right”… like when you discover a hidden jewel in your greenhouse that grew and bloomed without you even realizing it.

Whatever cultural practice you employ, just be sure that your mix is free-draining (these plants do not want to stay overly wet) and that you respect their growth and dormancy periods: warmer and wetter during the growth period and cooler and dryer during their dormancy.

As with all of our orchids we stress the importance of water quality. We feel that reverse-osmosis water or rainwater is essential, especially if you decide to grow your plants mounted. We use reverse-osmosis water because our well water contains approximately 250 parts per million of total dissolved salts and the pH can be as high as 8.0 during some times of the year. We use ½-strength fertilizer and periodically flush with clean water. We rotate fertilizer formulas and always provide micronutrients.

HOPE FOR SURVIVAL

We read an interview with Caddy Adzuba recently (Otaegi 2014); she is the winner of a Prince of Asturias Award (the Spanish royal foundation’s equivalent of the Nobel Peace Prize). She’s a symbol of the peaceful fight against sexual violence, poverty and discrimination in the Democratic Republic of Congo. What we found especially poignant were her comments on the outsider’s view of Africa. To paraphrase her, “Much of the world lives in a state of naïveté, if I may say so, even with all the information it has, the world sees Africa as just a poor continent, the Third World; Africa is war, Africa is disease, Ebola. The world needs to change how it sees things in Africa. It has to change its policies towards Africa. It’s very important.” Although she speaks with regard to the people and their conditions, as orchid growers don’t we owe it to these special plants to help them alive and protected too?

References


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—Brenda Oviatt is an artist and Bill Nerison is an architect. They live on the Clark Fork River in Missoula, Montana (a corner of paradise), with their daughter Marisa, son Tristan and an assortment of animals. They’ve been growing orchids together for 31 years and in that time have grown in many settings. For the last 10 years, their orchid growing has focused on the ex situ propagation of endangered angraecoids and the education of hobbyists and growers (billn@bresnan.net; botanicaltd.com).