

Aerangis articulata by Brenda Oviatt and Bill Nerison

An Exquisite Star from Madagascar

IN ALL HONESTY, WHEN WE FOUND out that our photo of *Aerangis articulata* was chosen for the cover of Isobyl la Croix's (2014) new book *Aerangis*, we were more than just a little excited! We decided that this is a perfect opportunity to tell people more about *Aerangis articulata* and give an introduction to her new book. We will try and help clarify the confusion surrounding the identification of this species, describe what to look for if you intend to buy one and discuss culture to help you grow and bloom it well.

We love angraecoids, and the feature that most share and what sets them apart is their spurs or nectaries. In some orchid species, attracting the pollinator is all about fooling someone (quite often an insect). Some will mimic a female insect while others will mimic another type of



Brenda Oviatt and
Bill Nerison

flower to attract that flower's pollinator. Oftentimes the unsuspecting insect gets nothing in return; not the promised mate or the nectar of the mimicked flower. With angraecoids, the pollinator is

often rewarded with a sweet treat: nectar that sits in the bottom of the spur. The pollinator of *Aerangis articulata* is a hawk moth (DuPuy, et al 1999) whose proboscis can reach that nectar. These moths are attracted by the sweet nighttime fragrance (scented much like a gardenia) and by the white flower (more visible than a colored flower in the dark). And that nectar tastes a lot like honey (yes, we tasted it).

Our first exposure to this exquisite plant was by Fred Hillerman when The Angraecum House was still in operation. Though we'll go beyond the description of it in his book *An Introduction to the Cultivated Angraecoid Orchids of Madagascar* (Hillerman and Holst 1986), Fred summed up the beauty and desirable qualities of this orchid as follows:

"This is one of the finest of the genus *Aerangis*. The flowers are of the purest white, very nicely scented, and held on cascading inflorescences in which all the flowers open together and are well arranged. Often confused with *Aerangis modesta*, this species is



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more showy, larger in plant size and longer stemmed. *Aerangis articulata* is a plant that definitely belongs in every collection."

We wholeheartedly agree! It was plants from Fred that initially got us "hooked" on angraecoids in the mid-1980s. He included notes with the plants we ordered, would follow up on the orders by calling us and was always helpful when we'd ask questions. We still have many great plants from him. If you read his writings though, please do realize that there are some inevitable errors and some names have changed since his writing. All praise aside, don't take his book, anything on the Internet

[1] The distinguishing feature of *Aerangis articulata* is its long spur (nectary). Grower: Botanica Ltd.

[2] This is *Aerangis articulata*. Notice the flat starry flower and the beaked anther cap.

[3] This is *Aerangis stylosa*. Its petals and lateral sepals are strongly reflexed. Grower: Botanica Ltd.

ERIC HUNT



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JOHAN HERMANS 4

Aerangis

We are excited to present more information about the new book, *Aerangis*, by Isobyl la Croix. She provided us with the section about *Aergs. articulata* as well as a description of her purpose for writing the book:

“Information on the genus is scattered among various books and regional floras, many of which are no longer in print and are inaccessible to most people. I have tried to gather it together and bring it up to date, for species both in Africa and in Madagascar and other Indian Ocean islands and to illustrate as many as possible.

It is usually fairly easy to identify an unknown plant as belonging to the genus *Aerangis*, even when it is not in flower, but it can be much more difficult to distinguish the actual species. I hope this book will help growers and others interested in the genus to identify these.”

In her book, the information provided for *Aergs. articulata* contains the history of its discovery and naming (included within this article). A thorough description of the plant, its native habitat and its distribution is given, as well as cultural advice. She also includes notes about the species; in this case it explains why some of the confusion with other species has occurred.

— Brenda Oviatt and Bill Nerison

or even this article as gospel.

The confusion between *Aergs. articulata* and *Aergs. modesta* is understandable; they are quite similar to one another. When you see them side by side, the differences become clear. *Aerangis articulata* is larger both in plant and flower size. To us, the clearest distinction is the length of their spurs. Those of *Aergs. articulata* can be up to 8 inches (20 cm) long, whereas those of *Aergs. modesta* are typically about 1½ to 3 inches (4–8 cm). It’s really noticeable. A more subtle but interesting difference is that the apical flowers of *Aergs. articulata* (the ones at the tip of the inflorescence) open first and are somewhat larger than the other flowers. We suspect that in cultivation, if not properly labeled, there could be added confusion, as *Aerangis Artisan* is a hybrid between these two species. If you want to purchase the species, pay careful attention to the plant tag, and purchase from reliable sellers.

H.G. Reichenbach described this species as *Angraecum articulatum* in 1872 from a specimen sent to him by the Rev. William Ellis, who had collected it in Madagascar. Schlechter transferred it to *Aerangis* in 1914. The Latin *articulatus* means articulated or jointed; it is difficult to see why that epithet was used for this particular species. Over the years, this plant has had several names (this is in addition to getting confused with other species). Just so you’re aware, if you see *Angraecum articulatum*, *Angorchis articulata* or *Rhaphidorhynchus articulatus*, those are the three homotypic synonyms for it (in botany meaning literally “with the same type”). *Angraecum descendens*, *Angraecum calligerum*, *Aerangis venusta* and *Aerangis calligera* are the four heterotypic synonyms for it (in botany meaning literally “with the different type”) (World Checklist of Selected Plant Families 2014). It has also been misidentified as *Aerangis ellisii* and *Aerangis stylosa*, both lovely but very different species. Unfortunately some of this confusion and misidentification has continued on and many plants sold as *Aergs. stylosa* are in fact *Aergs. articulata*; true *Aergs. stylosa* is quite rare in cultivation. The flowers of both *Aergs. ellisii* and *Aergs. stylosa* have very reflexed petals and lateral sepals (bent backward) and are easy to tell apart from *Aergs. articulata*.

Aerangis articulata is fairly widespread in the eastern and northern parts of Madagascar (occurring in four of the six provinces) and on Anjouan in the Comoros. It grows from the coast at sea level to the plateau at 6,500 feet (2,000 m). This wide range in elevation means that it is more

tolerant of temperature variation than some of the other *Aerangis* species. It is an epiphyte and grows on the trunks and branches of trees in evergreen forests. Where it grows in Madagascar, it's in shade or even deep shade, and it seems to appreciate good air circulation. Picture this as you prepare a spot for it in your growing area.

With regard to the best-grown plants, the American Orchid Society has given 13 awards to *Aerangis articulata* (including the synonym *Aerangis calligera*) since 1971. We especially liked the judges' description of the clone 'Erin' that received an AM with 81 points in 2009; "fifty-four flowers evenly spaced and well-presented on two gracefully arched, pendulous inflorescences to 50 cm long." There have been seven AMs given for flower quality and two CCM awards.

Aerangis articulata has not been used extensively in hybridizing, but its eight hybrids (including those listing the synonym *Aerangis calligera* as a parent) are worth noting. Seven of the eight are with other *Aerangis* species and one is with another *Aeranganthes* (*Aerangis* × *Aeranthes*)

Aerangis Amado Vasquez = (*cryptodon* × *articulata*)

Aerangis Hawaiian Star = (Brian Perkins × *articulata*)

Aerangis Artisan = (*modesta* × *articulata*)

Aerangis Articot = (*kotschyana* × *articulata*)

Aerangis Heather Campbell = (*luteoalba* × *articulata*)

Aerangis Callikot = (*calligera* × *kotschyana*) = reverse cross of *Aerangis* Articot

Aerangis Somacalli = (*somalensis* × *calligera*)

Aeranganthes Enny Delden = (*Argt.* Rex van Delden × *Aerangis articulata*)

CULTURE If you want to grow a true *Aerangis articulata*, get it from a reputable source. Ask questions. Mistakes can happen, but you can learn much by paying attention to how it is described and about the seller's knowledge. We find ourselves a bit irritated to often see this species described as miniature. Yes, as young plants, they are small. As first-bloom plants, they're still smallish, but well beyond "miniature" status. As adult plants, these are **not** miniatures. If you're planning to keep one of these in your mini collection long-term, you may find yourself disappointed. A happy, single-growth, adult *Aerangis articulata* can be 16 inches wide × 12 inches long (41.6 × 30 cm) **without** its 18-inch (45-cm) long flower



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spike. Magnificent is a good description, miniature is not.

How hard are they to grow? We do not recommend *Aerangis* as good first orchids, or *Aerangis articulata* as the best first *Aerangis*. To generalize (not always a good thing to do) think of these as the fussiest *Phalaenopsis* there are. Like a *Phalaenopsis*, they **do not** want water sitting in their crown or on their leaves for any length of time. A desirable result of growing them mounted is that it's unlikely that water can ever sit in their crown. If you get the foliage wet, it's best to do it early in the day and make sure there's enough air movement for them to dry out by day's

[4] Johan describes seeing *Aerangis articulata* in Madagascar growing on the trunks and major branches of forest trees, mostly in very shady situations in dense forest but also on trees along the road. It seems to enjoy some air circulation. [Johan Hermans]

[5] In our experience, this is an average size for a first-bloom *Aerangis articulata*. It is, for now, happy in its pot. [Brenda Oviatt]

[6] As a mature adult, an *Aerangis articulata* is less well-behaved and appears to be escaping from its pot. [Brenda Oviatt]



TOM KULIGOWSKI

inside of the pot. As they reach blooming size though, they tend to start sending roots out of the pot. The pot almost becomes a detriment at some point, and even with “correct” watering the roots inside will often begin to die. Under our conditions the plant rarely falls out though, because the old roots remain attached to the pot. It serves as a good starting point for the plant. Once established we discontinue watering the pots almost completely. However you decide to grow it, mounted or potted, watch their roots. The growing tips will tell you how and what your plant is doing. Nice long growing tips = happy, healthy plant in active growth. Shortening tips can indicate a problem or serve as an indication that plant growth is slowing, and it’s time for a brief dormancy.

LIGHT AND TEMPERATURE We grow ours in three locations, so we decided to describe the plants in each location as they are at this writing, late June in Montana, just after lunch (with notes about light readings taken at 5:00 pm). Outside, it’s a lovely summer day, no clouds and 10,080 footcandles (fc) of light outside the front of the greenhouse.

Location 1: The plants are in pots on a lower bench facing south. They are shaded by other plants and get 430 fc (and 350 fc in the late afternoon). These plants have been forming flower spikes for several months now, and it will be perhaps two more months before they actually begin to bloom. One inflorescence is 20 inches (50 cm) long and continuing to grow.

Location 2: The plants are on cork plaques, facing north and are getting 390 fc. Though they’re facing north, they’re on the west side of the greenhouse, and in the late afternoon are getting 670 fc. These plants began forming their flower spikes well after the plants at location 1, but are beginning to form flower buds. The plant getting the brightest light has a flower spike that’s 23 inches (58 cm) long.

Location 3: The plants are in pots facing north on a waist-high bench that is heavily shaded by plants above. They get 270 fc at midday and just 60 fc in the late afternoon. Though the plants are beautiful, there’s not a single inflorescence this summer. The largest plant, however, has 11 new growths along its stem! We don’t really consider this the best spot to grow these, but the plants have sent out such long roots and have become so firmly attached to the bench system, it is now home for them.

What does all of this tell us? Well, even the ones in the brightest light aren’t getting that much light as far as orchids go (For comparison, the typical recommendation

[7] A mature blooming *Aerangis articulata* on a mount is a beautiful sight! It allows the pendent inflorescence to look its best.

end. It’s the roots that need the water the most (though when spraying with fertilized water, a certain amount of the fertilizer will be taken in by the leaves as well) and the roots **must** dry between watering. As with most orchids, their roots will grow where they’re the happiest. In our greenhouse, where it’s quite humid much of the time, they often grow out of the pot and away from their plaque. We are often asked by novice orchid growers why the roots of their orchids (usually a *Phalaenopsis*) keep growing up and out of the pot. Especially for those growing in the home where humidity is low, the top two reasons are because the potting medium is staying too wet and they’ll rot if they go there, or because there are so many roots that there’s no room for more. *Aerangis articulata* has roots similar to a hybrid *Phalaenopsis*: relatively thick, able to hold moisture for quite some time and they don’t want to stay wet.

Most *Aerangis* are best grown mounted. You’ll read that *Aergs. articulata* is best grown mounted and they certainly put on their best display at blooming that way. And, in nature as epiphytes, *Aergs. articulata* grows “mounted.” We’ve tried that, and have found that mature plants can be challenging to keep that way. As they age, they have a look that they’re trying to get away from what they’re mounted on. They often look like they’re trying to “run away” from their pots, too. Part of **our** decision to grow more of these potted than mounted is because of the challenges of having many plants hanging 2 feet (0.6 m) away from the screen they’re on. They are easily damaged if you’re not careful walking past, and can require extra support as they grow — though if you have just one, this should not be a problem. We’ve started young plants in plastic pots in an open bark mix, and the roots adhere to the

for cattleyas is about 2,500 fc). But, the plants getting the brightest light are the ones with the longest inflorescences. The plants in all three locations grow in similar temperatures; extreme winter nighttime low of 58 F (14.4 C) and maximum summer daytime high of 96 F (35.5 C). As a rest period for *AerGs.articulata*, we provide less water for a couple of months after blooming.

WATER/FERTILIZER We water using reverse-osmosis water, cutting the manufacturer's recommended fertilizer strength by half and periodically "flushing" with clean water. We rotate fertilizer formulas and always provide micronutrients.

HOPE FOR SURVIVAL *Aerangis articulata* is one of 57 currently recognized species of *Aerangis*. Though not uncommon, it is still not widely available in cultivation. One important aspect of survival of a more common species like *AerGs. articulata* is to ensure accurate identification and labeling of plants. We know from experience that the world isn't perfect. Sometimes we assume the orchids we have purchased are correctly labeled but they are not. Know how to read a label (to know if it's a species or a hybrid) and do your best to verify it's correct when it blooms. We encourage everyone to share

pollen, seed and **accurate** information!

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Acknowledgments

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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 11 years, their orchid growing has focused on the ex-situ propagation of endangered angraecoids and the education of hobbyists and growers (website: www.botanicaltd.com).

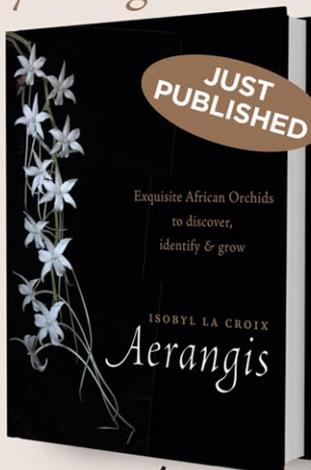
Aerangis

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