

Hilo Orchid Society Newsletter

March 2013

Next Meeting

Date: Sat., March 9, 2013
Time: **1:30** Informal "talk story"
2:00 Meeting starts
Place: Kamana Senior Center,
127 Kamana St., Hilo
Speaker: Ted Green
Topic: Spathoglottis



Spathoglottis plicata



Ted Green

Spathoglottis is an ideal landscape plant in Hawaii. It's so easy to grow that the species *Spathoglottis plicata*, also known as the Philippine orchid, has escaped cultivation and grows wild along trails and roadsides.

Our speaker, Ted Green from Oahu, has done extensive hybridizing with Spathoglottis in a variety of colors. He's the author of the book *Orchids In Hawaii*. A member of the American Orchid Society since 1943, Ted is on the AOS Conservation Committee and was president of the Pacific Orchid Society. In addition to orchids, he's interested in Hoyas and has been a practicing landscape architect for 50 years.

If you want to find out more about these easy to grow, almost everblooming orchids, don't miss this meeting!

Last Chance to Pay Dues

Your membership dues for 2013 were due in January. If you haven't paid by the end of March, we have to drop you from our membership list. Don't make us do that! Please pay Vivian Ueoka at the meeting, or send in the form on page 5 with your check. Dues are still only \$20 for individual membership or \$25 for family membership.

President's Message

Aloha Lovely HOS Members!

Our 2013 Show Steering Committee has decided on a theme for this year: "Orchids Around the World"! There are several criteria we look for in selecting a theme. First, we try to select something that brings a visual picture, or multiple pictures, to mind, something that represents color, life, and involves orchids. Next we try to make sure that an artist will be able to think of a good image for us, and that it has just a few concise words to fit on our posters and T-shirts. Then we look for something that will suggest interesting scenes or settings around which our vendors can build their displays. It needs to conjure up something different in the imagination of each vendor so we get a variety of beautiful and interesting displays to show off all that is beautiful in orchids. We are not ready to unveil the 2013 artwork quite yet, but we are excited to tell you we have chosen one of our talented members to be our year's orchid artist! It will be Glory Garner. So when you see Glory, let her know you are excited about seeing her beautiful work on our "Orchids Around the World" T-shirts and posters!



Aloha,
Julie Goettsch



Blc. Pseudo-McDonald 'Bountiful Bouquet' HCC/AOS, grown by Orchid Eros



Cattleya iricolor 'Orchid Eros' HCC/AOS, grown by Orchid Eros



Cattleya loddigesii 'Isabel Rosalia' AM/AOS, grown by Orchid Eros



Paph. Luther Pass 'Lehua Spotted Pop' AM/AOS, grown by Lehua Orchids



Paph. (Ruby Pulsar x Macabre Magic) 'Lehua Green Splash' HCC/AOS, grown by Lehua Orchids

Casting Call

We are fortunate to have secured famous Hawaii designer Nita Pilago, owner of Wahine Toa Designs, for our fashion show event at our orchid show in August. We're looking for men and women to model some of Nita's fabulous creations. You don't have to be a skinny model – Nita's designs are made for all body types. It's fun for everyone.

If you're interested in participating in this event, call Rayna Armour at 963-6233 or email her at rayna@theorchidworks.com

Members' Choice Winners for February

Photos by Larry Kuekes



Hobbyist 1st place: *Trichopilia suavis*, grown by Vivian Ueoka



Hobbyist 2nd place (tie): *Cattleya lueddemanniana*, grown by Fred Levine



Hobbyist 2nd place (tie): *Den. spectabile*, grown by Shelby Smith



Commercial 1st place (tie): *Paph.* Telstar 'Orbit', grown by Lehua Orchids



Hobbyist 2nd place (tie): *Vanda* unknown, grown by Tibor Halmagyi



Commercial 1st place (tie): *Paph.* Luther Pass, grown by Lehua Orchids



Commercial 1st place (tie): *Paph.* British Concorde, grown by Lehua Orchids

Orchid Stories

How To Grow Orchids From Seed (Or Not)

Growing most plants from seed is pretty easy. You put the seeds in some dirt, water them, and voila!

Of course, orchids have to be different.

Orchid seeds are tiny, like dust. An orchid seedpod can contain hundreds of thousands of seeds or more. One scientific count revealed that a single seedpod of *Cycnoches chlorochilon* contained 3.7 million seeds!

Having such tiny seeds turns out to be a good strategy for dispersing them. Most orchids are epiphytes and live up in trees. Since the seeds are so tiny, they literally float in the air like dust, and that's how the seeds can get from one tree to another.

Despite the abundance of seeds, early orchid growers found it almost impossible to get them to sprout. They found that if they sowed the seeds around the base of the mother plant, a few seeds might sprout. Away from the mother plant, zilch.

What was going on? The seeds are so tiny, they contain no food supply. Now, this is very strange. Aside from orchids, seeds always contain a plant embryo and a food supply to support the embryo until it can grow its first roots and leaves. Then the plant starts making its own food, through photosynthesis. For example, a bean is the seed of a bean plant. We think of the bean as food for us, but actually it's intended as food for the bean embryo to get it started in life.

Without any starter food, how can an orchid embryo grow its first leaves? Scientists discovered that, if the orchid seed lands next to the right species of fungus (and different species of orchids have different species of fungus), an amazing thing happens. The fungus tries to invade the orchid seed, but the seed somehow turns the tables and takes nutrients from the fungus, which it uses to develop those first roots and leaves. After that, the orchid no longer needs the fungus, although the two generally continue to live side by side.

This explains why the seeds sown next to the mother plant would sprout – that's where the right fungus was to be found. It also explains the incredible number of seeds produced in an orchid seedpod. Not only do the seeds need to float through the air to another tree, but they need to land next to just the right fungus. Out of a million seeds,

perhaps one or two would sprout.

Then, in the 1920s, Cornell scientist Lewis Knudson reasoned that if the orchid was using the fungus to get nutrients, maybe the fungus wasn't necessary if the nutrients could be supplied some other way. He tried sowing orchid seed in a flask containing an agar-agar gel with sugar and other nutrients, similar to the method used for growing laboratory cultures of bacteria. And voila! Instead of one or two seeds sprouting, they all sprouted. All they needed were the nutrients, not the fungus.

There was one problem. The nutrient mixture was also ideal for growing bacteria and fungi. In order for the tiny seedlings not to be overwhelmed by bacteria and fungi, the seeds had to be grown in strictly sterile conditions.

And this is the way that orchid seeds are grown to this day. If you want to grow orchids from seed, here's what you have to do:

- Prepare a sterile flask containing sterilized nutrient medium. The “flask” can be a laboratory flask or a bottle or jar, as long as it can be tightly sealed.
- Take the orchid seedpod, preferably a “green” pod that hasn't split open yet (so the seed hasn't been exposed to bacteria) and disinfect the outside of the pod.
- Slice open the pod and put some seeds onto the medium in the flask.
- Hermetically seal the flask.
- All this needs to be done under a laminar flow hood, an apparatus that directs the flow of air so that no stray bacteria or fungus spores in the room can contaminate the flask.
- Grow the seedlings in the flask for the next two years. During this time they may need to be transferred to another flask once or twice, still under sterile conditions. This is called “replating”.

Wait a minute – does this mean you have to have laboratory equipment? Bingo. That's why I said “or not” in the title. For an amateur grower, it's not worth it. Instead, it's much easier to get a commercial grower with lab facilities to do it for you. It's called “green pod culture”, and some commercial growers will do it for a fee.

Some commercial growers offer flasks for sale. These generally contain plants that are ready to be removed from the flask. They will have roots and be perhaps two inches tall. After “deflasking” (removal

from the flask), the seedlings are usually planted into community pots or “compots”, each pot containing from 5 to 30 seedlings. Many commercial growers also offer compots for sale. After another year, the plants are transferred to small individual pots, then larger pots as the plants grow.

All in all, it can take from 3 to 7 years for an orchid to grow from seed to flowering size, depending on the variety. Considering the amount of work involved compared to other plants – all that flasking and replating and deflasking and repotting – not to mention the expense of growing them in a greenhouse for years, the surprising thing is not how much orchids cost; it’s how little they cost!

Larry Kuekes

CALENDAR OF ORCHID EVENTS

All events are held at the Kamana Senior Center, Hilo, unless otherwise noted.

- Mar. 9 1:30 Hilo Orchid Society meeting
4:00 AOS Judging
- Apr. 13 1:30 Hilo Orchid Society meeting
4:00 AOS Judging
- May 10-11 Kona Orchid Society Mother’s Day Sale, Old Airport Events Pavilion, Kailua-Kona
- May 11 1:30 Hilo Orchid Society meeting
4:00 AOS Judging
- Aug. 1 HOS Show Judging and Preview Party
- Aug. 2-4 Hilo Orchid Society Orchid Show



Flask of Cattleya Summer Spot ‘Carmela’.
Photo courtesy of Hortipedia.



Cattleya Summer Spot ‘Carmela’. Photo by Larry Kuekes.
No, I didn’t grow it from seed. Too much work!

HILO ORCHID SOCIETY MEMBERSHIP RENEWAL FORM

Please fill out this form and mail it with your payment to Hilo Orchid Society, P.O. Box 4294, Hilo, HI 96720. Make check payable to Hilo Orchid Society. Dues are \$20 for individual membership; \$25 for family membership.

Name: _____

Check one:

Address: _____

Individual \$20

Family \$25

Email to receive newsletter: _____

Phone: _____

Hilo Orchid Society
P.O Box 4294
Hilo, HI 96720



FIRST CLASS MAIL

Visit us on the web at
hiloorchidsociety.org

Hilo Orchid Society Officers and Trustees

President – Julie Goettsch 333-5989
juliegoettsch@gmail.com
President-Elect – Larry Kuekes 860-380-7964
lkuekes@me.com
Vice President – Ben Oliveros 345-1371
oliveros@orchideros.com
Treasurer – Bill Rawson 934-0552
Recording Secretary – Susan Forbes 286-6130
sksforbes@gmail.com

Corresponding Secretary – Aimee Takamoto
Past President – Diane Luoma 640-2200
Trustee through 2013 – Jim Walker 964-1293
jwalkeresq@aol.com
Trustee through 2013 – Vivian Ueoka
Trustee through 2014 – Gerrit Takasaki 981-5500
lotaka81@aol.com
Trustee through 2014 – John Juszczak
jjuszczak@aol.com