



The Slipper Orchid Alliance Newsletter

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The Holy Grail of Orchids

By now most avid slipper orchid enthusiasts are aware of the newly discovered *Phragmipedium kovachii* found in Peru in May of 2002. Since its discovery, there has been a great deal of controversy about the describing, naming and collecting of this species which has subsequently produced a flurry of condemnation and criticism of those involved. Much of this can be witnessed on Internet chat rooms, web sites and even in various tabloids and newspapers around the world. One exception to this disparagement is the very informative and entertaining article written by the admirable Dr. Harold Koopowitz which was published in *Orchid Digest*, volume 67 (4). In this article I will share the fantastic experience my significant other and I had on our journey to see the *kovachii* in situ. During that excursion, we also observed the orchids as they were cultivated in various authorized Peruvian nurseries.

It was an early morning wake-up of 3:00 am on August 31, 2003 to get to the Madison, Wisconsin airport to meet our connecting flight in Chicago. After a short layover in the windy city we were on our way to Miami for the 4:20 pm flight departing to Lima, Peru. Upon arriving in Lima mid-evening, we were promptly whisked away to our hotel by a waiting driver. The drive through Lima was an experience

in itself. In bumper-to-bumper traffic the Peruvians negotiate with each other in a fashion that would greatly enhance transportation in any U.S. city. Horns sound constantly as the drivers edge their way between one another with hair-splitting precision, yet nobody gives a dishonorable hand signal or nasty glare upon being cut off. Traffic laws are lax, and disobeying stop lights or traffic signs seemed totally normal. We were told that in all this chaos accidents were rare and we witnessed first hand how the traffic moved in a timely and swift manner.

The following day another early morning rise was in order to get in some Lima sight-seeing before our afternoon flight took us to Tarapoto. The city of Tarapoto lies in northern Peru on the east side of the Andes at 800 feet and is a very hot and humid area. The main crops grown there are rice and coffee, though there are a small number of livestock farmers as well. It was then a 2 ½ hour drive from Tarapoto on fairly nice roads into the city of Moyobamba, commonly known as "Orchid City." Upon entering Orchid City we were welcomed with the sight of a huge plant monument of *Cattleya rex* that stood approximately 25 feet tall in the center of a small street roundabout. Soon we checked into a very nice motel overlooking a beautiful river valley in the jungle where we would remain for the next several days. The climate here was more what I had expected, as we were now at approximately 3,200 feet where nights were slightly cooler with warm, humid and breezy days.

There was no resting on this trip, and we were again up before the sunrise in preparation for the most exciting orchid adventure I could ever have hoped for. After a nutritious breakfast we were met by our guide who was carrying in his hands a mysterious round tin container with a cover on it. With a proud grin on his face he invited me to take a look at what was inside. As he opened the container I momentarily looked away at something and then looked back with a gasp of "Oh my gosh!"

There it was, an intact flower of the Holy Grail of Orchids, a *kovachii*. It was a fallen flower from a nearby nursery which he had kept in his refrigerator for two days to preserve for me to see first thing that morning. There I stood, nearly in tears, holding a flesh and blood *kovachii* flower that

Membership Renewal

If you receive a membership renewal form with your newsletter, your membership is up for renewal within the next three months. Please fill out the form and mail it to our membership secretary.

Information about membership in SOA can be obtained from our membership secretary, Jean Metcalf, orchidiva@yahoo.com.

practically filled my hand. Seeing the impact the flower had made on me the guide said warmly, "It is for you." Now with a tear running down my cheek, I carefully carried the flower to my room and laid it on my pillow, hoping it would still be there when we returned from the day's expedition. I could have sat for hours staring at the flower in amazement. It was so large, colorful and proportionally unlike other *Phragmipediums*. Even this fallen bloom of two days ago still exhibited heavy substance and fluffy, velvet-like texture. The pure white staminode stood in contrast to the huge and bright magenta petals. The pouch was much darker, almost purple outside and spotted with white dots and rimmed yellow inside. An incredible sight to behold and what a way to start my day!

With that emotional episode over, we proceeded to load the vehicle with our backpacks of cameras, compass, altimeter, rain gear and so on for the drive into the mountains and our eventual hike. On our way out of town we stopped at the Peruvian version of a convenience store, where we loaded up with multiple large bottles of water and dozens of snacks to take along on the hike. I was already aware that things were very cheap in these parts but much to my surprise the entire bill came to only 22 *nuevo soles*, equivalent to about \$6.50 US. We laughed as we told our guide that back home this would have cost us well over \$30.00.

Off we went on the one-hour drive into the Andes, slowly ascending every mile. Our guide briefed us about the upcoming hike as we drove and my excitement grew as fast as we ascended. Soon we were over 5,400 feet in elevation and nearing our departure from the vehicle. Just before nearing the end of our drive we were flagged down by a stopped policeman on the side of the road. It was evident that our guide knew the officer as they carried on a friendly conversation in Spanish, which I understood very little of. My significant other was better versed in Spanish, and I could see a concerned look on her face as the two continued conversing. Upon leaving that setting our guide then divulged the content of their conversation. We had been told by the friendly officer that there were *banditos* in the area and that it would be wise to either turn around and go back or make darn sure we were out of there before dusk. This was not good news as it was already approaching noon, and we had six hours of hiking still ahead of us and less than seven hours of good light left. That wouldn't leave us much time at the site, if we ever got there at all. We decided to go on and take our chances. This was a once-in-a-lifetime opportunity for me and I wasn't about to go back now. Crazy? Yes, I'll admit it: I'm crazy about this flower and had to see where the plants were growing, especially after having the flower in my hand earlier that day.

As we continued driving to the site our guide revealed the other locations where the *kovachii* had been found, pointing out that he was taking us to the site of the most recent discovery. He stated that the previous sites were much easier

to get to and that one of them was literally right along the roadside, which he later in the trip took us to see. The previous sites had already been stripped of plants by collectors, so there was no reason to visit those locations. The sad news for us, however, was that in the three weeks since my last conversation with my Peruvian contacts, the site we were about to visit had also been completely stripped of plants. This was terribly disheartening news, but I still had my mind set on seeing the actual site where the *kovachii* (once) grew. I wasn't about to let the *banditos* or the stripped site dampen the elation that I still had from holding that awesome flower just hours ago.

Finally we arrived at the trail head along side the road. There we were greeted by a farmer and a young child who were the responsible parties in finding this particular site. I commenced loading our backpacks with gear, water and snacks for the six hour round trip while our guide conversed with the farmer to get permission for us to walk in over his land. Since it was the dry season we were traveling pretty light as far as clothing and other gear, but the amount of water, snacks and cameras made my pack quite heavy. As we departed up a very steep incline passing the farmer's domain to enter the trail, I couldn't help but notice that our guide was carrying nothing. I asked him if we were indeed starting the hike because if we were, I wanted him to bring along some water and snacks. I was concerned about his well being because, after all, he was our guide and I didn't want to lose him out there to thirst and hunger. It was going to be a long way back to the vehicle where we left reserve supplies of water and snacks. His reply to me was a positive, but polite, "*No agua, gracias.*" I was stunned at his reply! He intended to hike for six hours with no water! Then I thought, "Just wait, he'll be begging me for a drink later, just wait and see."

During our briefing about the hike on the drive up, our guide answered our repetitive question of "How difficult is this hike?" with a consistent and polite reply of one comforting word, "Easy." My significant other and I are both in our mid 40s and have done some extensive hiking in our lives, including a six-hour uphill hike out of the Grand Canyon. We were all fired up for this hike and figured it would be a piece of cake in comparison to the Grand Canyon. We knew our guide was in his 40s as well and thought that would make us all equal in stamina. Within minutes of hiking we would see that this was a huge misconception on our part as we watched him take off literally running like a gazelle on the jungle trail. It was clear that he was quite at home in this environment. We were amazed at his ability to traverse rocks, deep mud, logs and steep inclines without breaking a sweat or needing a breather. It was less than an hour into the hike when my significant other had fallen behind and shouted that she needed a break to catch her breath and re-hydrate. It was then that she properly named the hike

Upcoming Events

AOS Members Meeting

April 21 -25, 2004

The Slipper Orchid Alliance will be meeting at the AOS Members Meeting to be held in Wichita, Kansas, April 21-25, 2004. It will be held at the Hyatt Regency and Convention Center. We are sponsoring one speaker, Glen Decker, on Saturday morning at 11:00; his topic will be "Phragmipedium Kovachii – A Jungle Adventure." Following his talk we will have an auction of several very select plants and items.

There will be a Board Meeting late Friday afternoon, and all SOA members are invited to attend. Please join us and give us your input. We will also donate our dazzling glass *Cypripedium* trophy. For more information, contact www.kansasorchidsociety.com.

"The Death March." We both had learned the importance of using walking sticks in this kind of terrain, which was surely our saving grace or we'd still be there, stuck in the mud or gingerly stepping down a lengthy rocky slope. I had never before traversed such a wide variety of terrain on one hike. It seemed as though every twenty minutes we changed environments. We strolled through an easy rolling valley, then scaled a steep rocky incline that was followed by crossing multiple small rivers and negotiating dense swampland. We then climbed over huge fallen logs in the jungle thickets. We were making good time in our blazing of this rugged and difficult trail, a good thing because time was of the essence.

It was a little over an hour and a half into the hike when we happened upon what our guide told us was a farmer's domain. We were deep into the jungle now and had really hustled to get that far, so I was amazed that someone actually lived this deep in the jungle. We were greeted by a barking dog giving warning and soon someone appeared out of the very small and run-down shack. Our guide conversed from a distance with this person momentarily as we slowly moved on. I was still amazed that someone was living in those conditions. Nearby was a small semi-dried up stream which I'm sure supplied the farmer's water. There were one cow,

a mule, some chickens and ducks, a goat, and, of course, the dog. This was a beautiful location between rising peaks of solid green and a very distant waterfall which we could hear but barely see in the dense haze of the humidity. It was a very peaceful setting but seeing this impoverished farmstead gave me new respect for how I live and the material wealth that surrounds me.

As we moved onward, the clouds started to thicken and the sky threatened rain. As I looked around it was evident that during the rainy season this hike would be very different. We were walking in a dry, rocky riverbed that was twenty yards wide in some places. We could see the uprooted trees on either side, evidence of the powerful raging water that must rush through this area after heavy rains. The hostile nature of this place in the wet season could explain why species can go undiscovered for so long.

Negotiating over the inconsistently sized rocks in the river bed was proving to be a very difficult leg of the hike and we (excluding the guide) were really becoming fatigued with the pace. We knew that we were getting close and after hiking nearly 2½ hours we asked the inevitable question, "How much further?" Our guide gave the simple reply of "Fifteen minutes."

It wasn't that we were constantly hiking up hill all the time or that it was extremely hot; it was the extreme pace and conditions that wore us out. My altimeter was giving readings of a slow ascent but it was hardly noticeable because it seemed we were constantly going up and down. Some time later, rounding yet another bend into an opening and crossing yet another stream we asked again, "How much further?" His reply AGAIN was "Fifteen minutes." Frustrated, I had to believe him but wondered really if he even knew the whereabouts of the site or if we were just going to happen upon it by continuing on, no matter how far it still was. I had put my faith in him to get us to and from the site and there was nothing I could do about the situation now but carry on, so carry on we did. As we crossed and hiked along yet another stream the guide suddenly stopped, looked up ahead, and pointed to a cliff. "*Kovachii!*" he said. The moment was euphoric for me and with renewed adrenaline I rushed to get to the site. As we all know, rushing when you're exhausted can lead to potential disaster, and it certainly did just that. Tripping and falling hard on a rock, I thought, "That's it for me; I'll never make it back out of here now." My left knee still reminds me of that fall.

From the short distance we were from the site it was apparent that there had been significant disruption of the area. While holding my knee I limped along approaching the sheer vertical cliff where the plants once grew. Still lying there on the ground was the thirty foot slender tree trunk used in scaling the cliff to reach the plants farther up and to no doubt pry the lower plants out from the ground. The area below the cliff was cleared of vegetation, and large rocks were relocated in order to get a better vantage point for removing

the plants from the cliff. Many of the small trees were cut down and tossed toward the stream to better access the cliff face. It was a sad sight. As we stood there quietly, I could only imagine what it had looked like with all the *kovachii* plants growing there and blooming. It is a shame they were all removed and their fate unknown and most likely doomed. As I scanned the top of the cliff with my binoculars, I saw one clump of *kovachii* far out of the collectors' reach and still growing happily. The vast area of exposed earth on the cliff revealed that there had once been many plants at this location alone. Jutting out of the cliff were the remains of the long roots left behind. I also spotted a few small seedlings which in time should repopulate the site, but probably not in my lifetime.

The cliff itself faced south and was made up mostly of rock and loose gravel covered with a two- to four-inch layer of spongy, mossy debris which the roots traversed. It looked as if some roots might have reached three or more feet in length. When the trees had stood along the cliff, these plants had received very little direct sun. I had to remember that I was south of the equator and facing south there was like facing north back home. My altimeter was reading just short of 6,000 feet at and around the site. Our guide mentioned that rumors were circulating of more *kovachii* plants just across the stream and up a ways. As exhausted as we were and limited for time, and with my injured knee, we were in no position to make the journey. The guide explained to me what this site had looked like when he first saw it with all the plants still intact. He described seeing the orchids growing in huge clusters of fifteen to twenty fans or growths per clump! At the time I could only imagine what that had looked like, but later in the trip I had the chance to actually see some of these specimens nursery grown.

After some photos, a snack, and a little rest, we started on our way back. We could see that the light was waning fast and in some places deep in the canopy it was nearly dark already. My pace was a little slower and our guide was getting concerned we weren't going to make it back before dark. I was running low on water and even lower on energy. We stopped at one of the small streams to take a breather and there for the first time after being out for over five hours I saw our guide take a drink from the stream. The man must have been part camel! I was happy to see him hydrating, even if it was from the stream. After that short rest we knew that we needed to hit it hard in order to make it out by dark. So with visions of sleeping in the jungle and being a meal for some odd critter or creature, we were forced to put our heads down and kick into high gear. There was no more resting and little conversing among ourselves except for my occasional shout of "Are you gonna make it sweetie?!"

We made it back to the vehicle with a little time to start driving before the last light. It was a quiet ride back to the city as we were hungry and exhausted. We stopped at a café just outside of town and had a tasty venison dinner with our

guide and then headed straight to our motel for a much-needed hot shower. I was happy to see the *kovachii* flower was still there, and I spent the remainder of that evening examining it more thoroughly, wishing I could have seen just one flowering in *situ*. Regardless, it was a wonderful first day in the jungles of Peru.

The next two days were spent visiting various other local attractions including local growers, both commercial and backyard hobbyists. The *kovachii* I saw growing in these establishments demonstrated the wide variety of plant forms I had been told this species could take. There were plants with short thick leaves and plants with leaves spanning as wide as my arms could stretch. There were flower stems as thick as my finger and some thinner than a pencil. Unfortunately, none of these specimens were in flower but many were in bud and would be blooming in a few weeks. Our guide, however, gave me a roll of slides and a large pack of photographs of *kovachii* flowers he had photographed during the past months as they came into bloom. From these pictures and slides it is evident that a variety of flower types exist in this species which will certainly add to the excitement already generated by this species for its hybridizing potential.

Our time in Moyobamba was coming to an end but our time in Peru had really just begun. In addition to seeing the *kovachii*, we also wanted to see as much of Peru as we could in a two-week period. From the Andes we went back to the coastal city of Lima to catch a flight into Cusco, and from Cusco we took a small plane to Manu which is in the Peruvian Amazon. We stayed at the Manu Wildlife Center which is a Biosphere Reserve and a National Park in the most biologically diverse region of the Amazon for terrestrial life. Three days of intense beauty in the lowland jungle of the Amazon! From there we flew back to Cusco for three days of touring the surrounding Incan ruins and then on to visit the fabulous ruins and orchids of Machu Picchu. My altimeter got quite a workout between the 6,000 feet elevation around Moyobamba to the 11,800 feet of Cusco, to 600 feet of the Amazon and then back to Cusco and then to 7,800 feet in Machu Picchu. From Machu Picchu it was back to Lima for a day of shopping and a visit to a nursery where I witnessed some of the most paramount *kovachii* plants of the entire trip, one of which later would receive an AOS award when judged in October, 2003.

I will close by saying that during the entire time we were in Peru, we survived on my partner's three years of high school Spanish and a small pocket dictionary. Our guide for the days we spent in Moyobamba did not speak any English at all. In general we found the Peruvian people to be warm, extremely generous, kind and sincere. Practically everywhere we went we were greeted with smiles and kindness along with a willingness to communicate despite the language barrier. At no time did we feel threatened or unsafe except when warned by the police about the *banditos* in the mountains. Peru is a wonderful travel destination that

I highly recommend to anyone, and I look forward to my return trip someday soon.

Chuck Acker

A Life and Death Struggle

One of the nicer benefits of growing orchids is watching with great expectation a series of seedlings develop and bloom to their fullest potential.

About two years ago, we purchased some Paph. Macabre seedlings from the Orchid Zone. With Terry's great breeding program and a little luck on our part, we could come up with a possible winner. Towards the end of the summer of 2003, we were getting lots of Macabres beginning to bloom out. Although the overall quality was very good, none was quite outstanding - until one in the middle of the pack opened up. It had very nice form, horizontal petals and excellent color and size. It also had a very long and strong stem which didn't need staking. Perhaps we had a winner here.

With the AOS Members meeting coming up in two weeks, we kept our eyes on that plant while we got all our other plants ready to sell during the show. When it came time to pull the display plants, Macabre 'Nick,' (named for my good friend Nick Burnett), got its freedom from the pack at last.



Paph. Macabre 'Nick' AM/AOS

Photo courtesy of Tom Larkin

(As with many greenhouses, occasionally a group of plants gets placed a bit too tightly together.) As our greenhouse is no exception, the only plant of this batch to develop a crown rot problem was the best one, Macabre 'Nick.' We sprayed it with Zyban, coated the rot with cinnamon and set the plant in our lab to help it dry out, keep it extra warm and



Slipper Orchid T-shirts Available

The SOA is pleased to offer two slipper orchid T-shirts to our membership. The first one is a silk-screen T-shirt which features four Cyp. acaule as designed by Marion Ruff Sheehan and made available by her daughter, Marian Sheehan.

The second is a paph T-shirt featuring four paphs with a



green background. Both T-shirts are on a heavyweight cotton shirt.

The cost is \$20, **including shipping**, and sizes available are small, medium, large, extra large and 2X. Orders may be placed with Tom Larkin, 9790 Larkin Lane, Rogers, AR 72756; home phone 479-925-2228, office 479-925-1885; fax 479-925-2428; wiplark@cs.com. Enjoy a unique shirt and support the SOA.

then hope for the best.

Setting up the display in Sacramento, I showed the plant to Alan Koch of Gold Country Orchids who, very generously, immediately called his greenhouse and ordered up a bottle of hydrogen peroxide. With a liberal dose of the peroxide, this plant would either die of too much care, or maybe come out of it and survive.

During a break in the activity, I perused the trophy table. The Slipper Orchid Alliance trophy really caught my eye. What a stunning trophy!! Too bad, I felt that I didn't have much of a chance at that one. It was easily the handsomest award on the table. Imagine my surprise when, after the ribbon judging, this beautiful piece of art was ours. Macabre 'Nick' cornered the best slipper in the show and an AM/AOS to boot!!

As a postscript – the plant has recovered from the rot and too much care and now has two new growths. I haven't put this one back in the middle of the pack, though. It has a place with our other awarded Paphs now and the trophy sits in a place of distinction on our mantle.

Rob Terry

Speaking of the SOA Trophy.....

The SOA trophy is available at cost to any of our members who would like to award it at their shows or other events. It is a beautiful blown glass cyp on a wooden base. The underside of the base will have the name of your event and the date inscribed so that the lucky person who takes it home will always know when and where they received it. Cost runs between \$65 and \$70 and will vary according to postage.



If you are interested in ordering one of the trophies for your next show, you would need to let Barbara Tisherman know approximately two months in advance. The trophies are made to order and are not a stock item. Barbara can be reached at btisherman@aol.com or 412-683-0207.



Paph. James Bacon 'Tejas' FCC/AOS

Congratulations to Ken Avant for receiving an FCC of 90 points on his Paph. James Bacon 'Tejas' at the Atlanta Judging Center on February 14, 2004. The flower had a natural spread of 9.6 cm. and the awards description read as follows: "One massive flat flower on one unsupported upright inflorescence, sepals and petals oyster white, evenly spotted deep maroon, lip exterior unspotted white, lip interior finely spotted maroon, staminode white, densely and finely spotted maroon, substance heavy, texture waxy."

Ken is well known for his exceptional phalaenopsis species but apparently he can grow slipper orchids too! Congratulations!

British Paph Society and Isle of Jersey

This past November the British Paphiopedilum Society had its annual winter meeting at the Marlwell Hotel near South Hampton. Having attended one of their meetings before, I decided I would go again and also visit the Eric Young Foundation on the Isle of Jersey.

Just getting CITES to bring plants is easily a 3-month ordeal and a real headache. But I feel it's worth while in that I get to meet new people and have a great trip. Once we flew from Minneapolis to Gatwick Airport we had to take the train (with our three large boxes of plants) to Victoria Station, London, then a cab to another train to Chowens Crossing and finally an express train to Winchester, just a few miles from the hotel. There were delays, and we had to maneuver our luggage and orchid boxes up and over a bridge to another platform where we caught a train to Winchester. From there we caught a cab to our hotel. It was an ordeal but worth it. The hotel is right alongside the Marlwell Zoological park, and there is an African theme throughout the hotel. The rooms are in separate buildings on stilts connected to the Lobby and conference area by heated, glassed-in walkways. There is a nice feeling of privacy and quiet, and the food at the hotel was excellent.

The meeting was well attended with enthusiastic Paph growers from the United Kingdom and France. There were wonderful displays with very nicely grown plants of species and hybrid Paphs and Phrags. Some that come to mind were Paph. sangii, Dusty Miller, villosum album, Phrag. Don Wimber, hirtzii and a great huge plant of Phrag. Ainsworthii. There were excellent speakers, such as Jim Clarkson from Florida, speaking on growing Paphs in that hot part of the world. Paul Phillips was elected again as president and he



Phrag. Jason Fischer 4n

his daughter, Claudia, and a host of others have created a good organization dedicated to having fun and learning about slipper orchids.

We had to leave the meeting early Sunday, as it was the only time we were able to get away economically to the Isle of Jersey to see the Eric Young Foundation. Chris Purver is the new director since Alan Moon retired, and Jane Ponter was our lead contact person there. After a 45-minute flight we were on this wonderful island, which is only 15 miles from France and has a milder climate than England. The architecture is British with French influences. Jersey is a tax shelter island so there is an affluent population, which means good food at even modest restaurants.



Paph. sangii

We pulled up to the Eric Young Foundation and were thrilled at the look of the new greenhouses, showroom and entry. There are beautiful pathways to dazzle you at every turn. It just happened to be that the Phrags were in heavy flower and we got to see the incredible 4N plants of Jason Fischer, Don Wimber, and others. There were some extraordinary Paphs as well and Calanthes, Cattleyas and giant Bulbophyllums. There is a beautiful viewing gallery, planked in clear teak, that allows one to peer into the production houses. To their credit the foundation staff really does put their best plants out for public display. All in all, the collection there is among the best in the world. I couldn't

take my eyes off some of the Phrags. I also spent too much time in their fantastic library, surely one of the best on orchids to be found. My wife, Yoko, had to remind me that we weren't there just to see orchids! There is the superb Gerald Durrell Wildlife Trust with perhaps the happiest creatures I have ever seen in a zoological park.

I highly recommend a visit to Jersey, as there is much to see and do. Summer is the high season, but even in November the weather was nice, requiring only light jackets. Renting a car does have its challenges, like hitting the left-hand mirror on the 10-foot granite walls that seem to be everywhere along the roads that you would swear were one lane. I just recommend hiring a driver; you'll be glad you did.

The British Paph. Society does publish a journal with color photos. If you are interested, go to one of the major search engines and type in The British Paphiopedilum Society. You will find info on joining the society and their journal there.

*Grow well,
Jerry Lee Fischer
Orchids Limited*

Paph History Breeding White Cypripediums

Reprinted from Gardening Illustrated. April 1952 by permission of Gardeners Chronicle.

Hybridisation and selective breeding are two of the most fascinating studies in horticulture. The layman's usual conception of plant breeding is that a breeder raises many thousands of seedlings for the purpose of selecting a few which may be an improvement on existing forms, but this is merely haphazard breeding. The skilful breeder works very differently, and arranges his matings with a definite object. It may be that he desires to improve the colour, or to breed paler shades, or increase the size of the flowers, or to breed a dwarfier, more compact or hardier race of plants. But whatever his objective he bears in mind the length of time which is required for each experiment, and takes every precaution to avoid failure by endeavouring to discover Nature's secrets and from them to form his own theories.

First Experiments

My first experiments in the breeding of white cypripediums were made many years ago at Scampston, in Yorkshire, where I successfully cultivated the reputedly difficult *niveum-bellatulum* section of cypripediums. I made a number of crosses between the species in this group and secured some very lovely results, but I realised that these hybrids would never become popular, as the flowers had

short stems and, moreover, the majority of orchid growers found them difficult to grow. I, therefore, started a series of experiments with the aim of breeding a race of white cypripediums which would compare favourably with the coloured hybrids.

My first experiment was a cross between an almost white variety of *Cypripedium Psyche* (*niveum x bellatulum*) and *C. Maudiae*, which at that time was rare and valuable. The result was a resurrection of colour in such an unpleasing way that I destroyed the plant and did not record the cross. This experiment, however, convinced me that matings between albinos and normals were not likely to breed white cypripediums, and later experiments confirmed this theory.

It is, of course, a scientific theory that albinism is caused by the absence of one factor, and the mating of an albino to a normal individual with even the slightest trace of colour will probably lead to the restoration of the missing factor and the progeny will be very similar in colour to what one would expect from the mating of two normal forms.

My early experiments proved how correct this theory was and I realised that to be a successful breeder of white hybrids I must confine my atings to yellow and dominant white forms and avoid true albinos.

Amongst my earlier successes were: *C. Astarte* (*C. Psyche x C. insigne* var. *Sanderae*). *C. Snowdrift* (*C. niveum* var. *Goliath x C. Aclaeiis*, Bank House var.), and *C. Armistice* (*C. niveum* var. *Goliath x C. Sanacderae*), which opened its first flower on Armistice Day, 1918. These hybrids produced all white or nearly white flowers, and I felt that I was making progress towards my ideal. When, however, the Scampston collection was dispersed, in 1919, these, together with much other promising breedings was lost to me. But when, in 1920, I was appointed to take charge of the gardens, at Bodnant, Lord Aberconway, with his great enthusiasm for all phases of horticulture, gave me the opportunity of making a fresh start, and empowered me to buy such of the Scampston-raised hybrids as I could secure. I was fortunate in obtaining plants of *C. Astarte*, *C. Albion*, and *C. Snowdrift*, but I could not secure any of the others and as no other hybridist appears to have made use of them, they have probably been lost to cultivation.

Of the three hybrids which I was able to secure, I knew from previous experience that *C. Astarte* was likely to prove the best parent, and one of my first successes, at Bodnant, was a cross between *C. Astarte* and *C. Actaeus* var. *Bianca*. This produced *C. F. C. Puddle* which gained both the RHS First Class Certificate and the Moore Medal, for the best new cypripedium shown to the society during the year 1933. All the seedlings from this cross were white and they were very even in both size and shape.

When we dissect the parentage of *C. F. C. Puddle*, we find that the ancestral species are *C. niveum*, *C. bellatulum*, *C. insigne* var. *Sanderae* and *C. spicerianum*. I have always found that the combination of *C. niveum* and *C. bellatulum*

on the one hand, and *C. insigne* var. *Sanderae* and *C. spicerianum* on the other hand, have produced white hybrids of finer shape and better substance than when combinations of *C. niveum* and *C. insigne* var. *Sanderae* only were used.

I have formed the theory that the yellow-green sap of *C. insigne* var. *Sanderae* is the most important factor in suppressing any cyanic colour, but it does not follow that all yellow forms of *C. insigne* will produce similar results. I have found that *C. niveum* x *C. insigne* var. *Sanderianum* produces progeny with richer markings than either parent, and *C. Psyche* x *C. insigne* var. *Scottianum* produced a form of *C. Astarte* with coloured markings; yet both *C. niveum* and *C. Psyche* crossed with *C. insigne* var. *Sanderae* have produced white forms.

An Excellent Parent

Cypripedium F. C. Puddle has proved an excellent parent and when mated to *C. Doris* Black, it produced *C. Vestalia*, a beautiful white hybrid which gained both the RHS First Class Certificate and the Moore Medal in 1945. *C. Snow Bunting* (*C. F. C. Puddle* x *C. Florence* Spencer), another fine white hybrid also gained the RHS First Class Certificate. In *C. Silverwings* (*C. Vestalia* x *C. F. C. Puddle*), we have an example of two white hybrids mated together and a double cross of *C. F. C. Puddle*. This produced all-white progeny and gained the RHS Award of Merit. Other good white hybrid cypripediums raised, at Bodnant, include *C. Dainty* (*C. F. C. Puddle* x *C. Amarah*), *C. Silver Cloud* (*C. F. C. Puddle* x *C. Nell Gwynne*), *C. White Emblem* (*C. F. C. Puddle* x *C. Asura*), *C. Modesty* (*C. F. C. Puddle* x *C. Anita*), *C. Chastity* (*C. Astarte* x *C. Nell Gwynne*), *C. Snowsprite* (*C. Anita* x *C. Astarte*), *C. Innocence* (*C. Chastity* x *C. Amarah*), and *C. Milkmaid* (*C. Rosy Dawn* x *C. Nell Gwynne*). This is one of the largest white cypripediums yet raised.

The awards which have been given to the white cypripediums bred at Bodnant prove their quality, and I feel that I can justly claim to have achieved my aim in breeding them, for in size, shape and length of flower stems they compare favourably with the coloured hybrids. Moreover, they have a better constitution and are more easily grown than their ancestors. But there is always room for improvement and there is no doubt that still finer white cypripediums will be bred; but when arranging the matings, it will be wise to bear in mind that the farther we breed away from the original white hybrids the more likely we are to produce yellow instead of white offspring, and I feel certain that it will be necessary to occasionally mate back to the earlier white hybrids to check the tendency for the yellow factor to become dominant. For this reason I believe that my namesake, *Cypripedium* F. C. Puddle, by reason of its pedigree, will always be a valuable stock plant. Another interesting point is that in breeding these white hybrids I have combined the summer and winter flowering sections of cypripediums and thus extended their flowering season.

In fact, the race of white cypripediums bred and grown at Bodnant ensures a display of flowers throughout the year.

F. C. Puddle, V. M. H.

Phrag. kovachii Update

It is with sadness and consternation that we have learned of the most recent developments in the ongoing controversy surrounding *Phragmipedium kovachii*, the recently discovered sensational purple flower. [See Dr. Harold Koopowitz's article in the *Orchid Digest*, Volume 67(4), Oct., Nov., Dec. 2003, for pictures and more information about this species.]

It has been reported that *Phrag. kovachi* first appeared in the United States at the Redlands Orchid Festival in May, 2002, where it was offered for sale by a Peruvian vendor. On June 5, 2002, Michael Kovach brought a plant he had purchased in Peru to the Orchid Identification Center at Marie Selby Botanical Gardens of Sarasota, Florida, for identification. Mr. Kovach had obtained a Phytosanitary Certificate and had paid an Agriculture Tax for this plant in Peru, and it had been cleared for entry into the United States by Customs and the U.S. Department of Agriculture. After the new species had been described and published, and the holotype specimen returned to Peru, the U.S. Fish and Wildlife Service declared its entry into the United States a violation of CITES.

The *Herald Tribune* in Sarasota reported on Sunday, January 25, that Selby and one of its scientists formally pleaded guilty to accepting and handling this rare orchid which the federal government now says was smuggled into the country from Peru. The plea agreement reached recommends that Selby pay a \$5000 fine and submit to three years' probation for the misdemeanor charge under the Endangered Species Act. Leaders of the popular nonprofit botanical garden also must run a full-page ad in the American Orchid Society's magazine, *Orchids*, to apologize, send letters to other botanical institutions to tell them how CITES is being implemented by the U.S. Fish and Wildlife Service and its impact on botanical garden operations, and request that the flower's name be rescinded. Selby horticulturist Wesley E. Higgins agreed to a plea agreement recommending house detention for six months, probation for a year, and a \$2000 fine.

These agreements were reached in December and settled months of negotiations with the U.S. Fish and Wildlife Service and the Department of Justice. In April a judge is

expected to rule on the plea agreements, which are just a recommendation to the court.

Also charged was James Michael Kovach, the Virginia nursery owner who was indicted in November on felony charges of possessing this illegal plant and smuggling it into this country. It is our understanding that his court appearance will take place on March 7.

It is believed that prosecutors wanted to make an example of Selby and Mr. Kovach to placate the Peruvian government. On the other hand, known sites of *Phrag. kovachii* were not protected by the government and have been stripped by collectors, and it is rumored that plants have been offered for sale in Miami for \$5000, have been sold in Europe for \$1000, and were being offered clandestinely during the recent Latin American Orchid Conference in Quito, Ecuador. The Peruvian government has allowed only two commercial Peruvian orchid firms to collect five plants each and to try to propagate them.

This troubling saga is complicated and has had and will probably continue to have many twists and turns. In the meantime, the chances of slipper lovers being able to see this plant in the United States, much less own one, are remote. Who could have dreamed that the love of beautiful orchids would lead to such personal catastrophes? When will sanity return to the orchid world?

Barbara Tisherman

Phrag. kovachii in Nature and in Cultivation

At the Latin American Orchid Show and Conference in Quito, Ecuador, February 5-8, 2004, one of the speakers was Alfredo Manrique, one of the two commercial orchid growers in Peru that the Peruvian government has allowed to remove five plants of *Phrag. kovachii* from the wild to be cultivated in a nursery for the government. In 2002 he traveled two times to the habitat high in the mountains of the eastern Andes. He found the plants at high jungle elevations of 1600 to 1950 meters, where the plants received no direct sun in the morning and about three hours at noon and early afternoon. There were usually a heavy blanket of clouds and heavy winds up to 60 miles per hour. The average summer temperature was 24 degrees C., and in winter 16 to 24 degrees C., although it could reach a maximum of 36 degrees C. and a minimum of 10 degrees C. Flowers appeared from September until early January. The plants were growing in poor soil and crushed limestone, usually in

a thin layer of soil over rocks on steep cliffs, with a pH of 7.9. Water from springs was close to pure, with a pH of 6-6.5 and 20 ppm. Humidity was high.

The plants have thick roots, and there is purple color at the base of the leaves. There are usually one or two flowers per inflorescence, which may reach 55 cm. and take five months to develop. The flowers come in variations of purple to magenta, with white on the back, and they take ten days to open fully. Mature flowers can measure 16.5cm natural spread (7"), 4" high, with a pouch 1 1/2" wide. The lower edges of the petals tend to fold back up to 180 degrees as the flower matures. The flower parts are thick and waxy. The flowers have no fragrance. The plants are very large, with leaves up to 80cm long and 5cm wide.

Mr. Manrique grows the plants in his nursery in Lima, Peru, in intermediate to warm temperatures, with high humidity, more than 70%. His medium is primarily gravel with some charcoal, perlite and fine fir bark. He waters frequently, about three times a week, to keep the mix moist, and fertilizes with 15-5-15 and minor elements. Light is about 2500 foot candles, and fans provide constant very high air movement. He says the plants are easy to grow. So far one seed pod of *Phrag. kovachii* became ripe and was flaked, and he has attempted a cross between *kovachii* and *caudatum*.

Mr. Manrique did not discuss the controversy or politics surrounding this magnificent plant, and we can only hope that in the near future we in the United States will be able to see it in its full glory. A plant shown at an orchid show in Peru in October 2003 was awarded a CHM of 94 points by AOS judges. As Dr. Harold Koopowitz eloquently pointed out in his editorial in the *Orchid Digest*, Oct., Nov., Dec. 2003 issue, "The best way to protect species in the wild is to make artificially cultivated ones so cheap and plentiful that no one would take the trouble to collect plants in the wild." May that time come soon.

Barbara Tisherman

Sunny California in mid-January – an ocean-side hotel in Morro Bay, a lovely area – prominent slipper orchid speakers – plants on display. An irresistible combination! My first visit to the Paph Guild was even more enjoyable than I had expected, and it is easy to understand why well over one hundred rabid slipper orchid lovers attend this special event. There is a special camaraderie that permeates the entire weekend, organized these many years by Norris Powell and his daughter, Patti James, of The Orchid House.

The meeting was called to order on Saturday, January 17, by the Chairman, Dr. Louis Hegedus, at 9:00 a.m. Kevin

Porter, from Santa Maria, California, started the day by interviewing the well-known and highly respected Fumi Sugiyama, who was visiting from Japan and who regularly attends the Paph Guild. He gave us insight into orchid growing in Japan and his breeding program.

After a break for coffee, tea, hot chocolate and Danish, Karen Muir of Laguna Niguel, California, presented "Brachypetalums – To the Extremes." These Paphiopedilums come from tropical Asia and prefer small pots, as they usually like to be on the dry side. By combining three or four pictures in almost every slide she was able to demonstrate each of the species and important progeny, using over two hundred images. This technique was especially helpful in showing variation within crosses and between similar crosses.

Paph. concolor is the most widespread Brachy and is supposed to be the easiest to cultivate. Plants similar to Paph. Conco-bellatulum, a primary hybrid, are being called Paph. wenchanense by Chinese growers.

Paph. niveum has the tallest stem of this group and has been used extensively to breed for whites. However, Paph. bellatulum has been used the most as a parent. Interestingly, bellatulum album actually has spots; they are white but raised and will produce colored spots in the next generation when bred. The four species most often combined with the Brachys are fairreanum, sukhakulii, delenatii, and rothschildianum, and their hybrids create different and novel shapes. Karen traced the history of white breeding going back to the late 1800s and emphasizing the importance of Skip Bartlett as a parent. However, the solid white Paphiopedilum with no speckling is still elusive. The introduction of vinicolors lead to better stems and marvelous berry colors, but not solid colors. Some of the old crosses are still outstanding today.

The advantages of using Brachys as parents are circular, symmetrical, flat flowers, white or albino type flowers, vivid contrasting markings and notchless petals. Faults may be cupping, color streaking, one petal larger than the other, fenestration, petal tip notches or mouse nibbles, recurving and low fertility.

Karen concluded that Brachy breeding is really not commercially profitable, as the plants don't give a lot of viable seed and producing hybrids will probably be continued by the smaller or hobbyist growers.

Following Karen, Charles (Butch) Weckerle-Thrun from the San Diego area showed slides of recent Paphiopedilum and Phragmipedium awards from the Cymbidium Society of America.

After lunch, Glen Decker of Piping Rock Orchids, Plainview, New York, took us along on his Peruvian adventure in search of Phrag. kovachii, the recently discovered sensation. Before reaching its site, he visited Machu Picchu, where he saw Phrag. caudatum growing in the Pueblo Hotel garden. On cliff sides along roads he found

Phrag. boissierianum, growing with more salts than he would have expected (120 ppm) and usually self-pollinating. In other areas Phrag. besseae was usually growing near waterfalls where there was a cool breeze and the water was almost pure; the root zone was cool. He and his companions were fortunate to be taken to the third known site of Phrag. kovachii, after an arduous, muddy, up and down, 4 ½ hour hike. They could see plants but no flowers on the sheer cliffs. The leaf spans of the plants were two to three feet, and the leaves were turgid. The plants tended to clump. Inflorescences, about 20 inches high, carried one to three buds. There is a wide color range reported, raspberry to purple. The flower grows to its full size over a period of a week to a startling 7 to 8 inches; as it matures the petals tend to reflex and curve and the color fades somewhat. {See article by Harold Koopowitz and pictures in the *Orchid Digest*, Vol. 67 (4), Oct., Nov., Dec. 2003.} It was disheartening to hear that the site they visited was stripped later, that the Peruvian government still forbids export and that the two Peruvian orchid firms which have been allowed to take five plants each have not been successful in keeping plants alive in flask.

After the Saturday lectures, the attendees were treated to an Open House with refreshments at The Orchid House, hosted by Norris Powell, Patti James, Michael and Valerie Powell. Of course cruising the many greenhouses was a must, and Orchids of Los Osos across the street also welcomed the visitors. A delicious banquet later in the evening capped a full day and allowed more socializing.

On Sunday morning the first speaker was Yves Aubry from Quebec, Canada, who spoke on "Phragmipediums of Ecuador." His pictures of flowers and habitats were excellent and helpful in understanding these plants. He was dismayed by the deforestation he viewed during his travels. From Quito he traveled along the east side of the Andes, where it was cool and humid, with constant rain during his trip in December. He saw a population of Phrag. besseae along a river, on very wet cliffs. Seedlings were growing in humid moss, and although they were growing on steep cliffs, the adult plants were usually on ledges with some vegetation. The water in the area had low salts, and the plants received little direct sun.

Phrag. wallisii, on the other hand, was growing at a lower altitude on the ground and beside rivers, sometimes on islands which could be submerged in water. They were also spotted growing epiphytically on trees, but there was dew every night.

Phrag. pearcei (ecuadorensis) appeared in muddy cuts along roads and was so prevalent it was considered a weed. It also grew on boulders and the banks of rivers, where it might be flooded. It was usually in low light situations. Phrag. boissierianum also was found in roadside cuts and vertical cliffs, usually in full sun, and seemed to be self-pollinating.

After another coffee break, Eric Christenson, of Sarasota, Florida, concluded the session with botanical illustrations of "New Chinese Paphiopedilums." Some may actually be varieties of existing species, rather than new ones, and several were based on only one or a few plants. Dr. Christenson has promised to write an article for the SOA about these new finds.

As I look back upon the Paph Guild, I am amazed at how much knowledge and fun were packed into a day and a half. The exhibited plants, as expected, included many fine clones, some famous old ones and some new directions. A bonus was meeting so many fellow slipper lovers, many of whom had familiar names, well known as growers and breeders. I highly recommend attending the Paph Guild to any serious slipper grower.

Barbara Tisherman

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In each issue of our newsletter we like to recognize and thank our supporting members. Each one of these businesses continues to support our efforts to have an outreach program for all slipper growers. If you are interested in becoming a supporting member, please contact Jean Metcalf at orchidiva@yahoo.com. We also hope that each of our members will support these businesses.

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