

Slipper Orchid Alliance Newsletter

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The Phragmipedium besseae - kovachii Connection

(Part 2)

The next chapter in this story is as convoluted as the discovery and introduction of *Phragmipedium besseae*, and deals with what many consider the most exciting orchid discovery of a century. When this particular chapter really begins is unclear, but as far as I have been able to learn, it probably originated sometime in early March of 2002, near the little town of El Progresso in northern Peru. A local plant collector happened to "stumble" upon a steep road cut where he spotted something that caught his attention. After some rather risky slipping and sliding down the slope, he was able to collect some orchid plants that displayed a huge purplish flower. The plants were brought back to his roadside nursery and put up for sale for passing tourists and miscellaneous plant lovers.

One day the owner of a larger orchid nursery in the Moyobamba area came by and saw the plants, and probably immediately recognized them as a *Phragmipedium* species, and just as likely also realized

SOA Membership

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, Jean Metcalf, 2323 Edinboro Rd. GH#6, Erie, PA 16509. Questions about your membership? Jean can be contacted at orchidiva@yahoo.com.

the economic potential involved with the sale of such an orchid on a larger market. A deal was apparently made that the original collector would sell all his plants to the Moyobamba visitor, and also he would return to the original site and collect as many as he could of the same orchid, and deliver them to the buyer. Somebody who knows the people concerned has mentioned that the agreed price per plant was \$1. It is unknown to me how many plants were included in this deal, but it appears to have been a considerable amount. Where these plants went from there is also unknown to me. I do know, however, from reliable witnesses, that some plants of this yet unidentified Phragmipedium turned up at the Redland Orchid Fair in mid-May of 2002. They were apparently offered for sale by a Peruvian nursery at prices ranging from \$5,000 to \$10,000 per plant. How many plants were involved, how many were sold (if any), and where any remaining plants may have ended up after the fair is unknown to me as well. I think it is a safe assumption, however, that they never returned to the country of origin.

This was the first time I learned about the existence of a new *Phragmipedium* with a huge purple flower from Peru. Interesting as this was, there was little anybody at Selby Gardens, or elsewhere for that matter, could do without any plant material available for scientific studies. Toward the end of May things were about to speed up, however, when Michael Kovach, an American orchid grower, went to Peru together with his wife. The couple eventually ended up in El Progresso where they visited a roadside nursery, searching for interesting orchids. After deciding that there was nothing in particular that caught their fancy, they turned around to leave. At this point, the daughter of the house asked them to come with her to the back of the house where they kept some plants that might be of interest. That is when Michael Kovach first saw a blooming plant of the purple-flowered Phragmipedium, planted in a treefern pot. Kovach did what any orchid aficionado would have done in his place; he bought the plants and according to Kovach's own story,

the agreed price turned out to be \$3.60 each. Shortly after the plant purchase, the new owner must have asked himself what to do next. After some discussions with an experienced plant collector and nurseryman in the area, it was recommended to Kovach that he take the plant to a place where it could be properly identified, and possibly described if it turned out to be new to science. This place was the Marie Selby Botanical Gardens in Sarasota, Florida, recognized in the orchid world for its Orchid Identification Center (OIC), and also responsible for the description of *Phragmipedium besseae*.



A flower of Phrag. kovachii to show size.
Photo by Lee Moore

While Kovach was trying to come up with a plan for what to do next, the original buyer of the *Phragmipedium* plants apparently found out about Kovach's acquisition, which added some tension to the situation, and he decided to use email as a way to market his plants. Photos of blooming plants were attached to messages that were sent to some customers in the U.S. One of the customers forwarded this message to the OIC in Sarasota, where it created quite a stir, and it was immediately realized that the mysterious plant from the Redland Fair suddenly had a "face." Still, very little could be done, scientifically, other than admiring the incredible flower. Simultaneous to this email, another message was sent from the Peruvian nursery to a customer in California,



Habitat of Phrag. kovachii Photo by Phillip Crib

who reacted much in the same manner and forwarded the images to a different orchid taxonomist in Sarasota. This happened on June 2, 2002. Thanks to what appears to be the unexpected efforts of an anonymous computer hacker, copies of the Peru-California-Sarasota correspondence were later sent to the OIC, as well as to the U.S. Fish and Wildlife Service. Through this correspondence, it is possible to conclude that due to some technical problems, the receiver in Sarasota did not see the images of the new *Phragmipedium* until June 3. Once the pictures came through, though, his reaction was immediate. As he realized what he was looking at, he quickly sent instructions to his contact in California, to instruct the Peruvian sender of the message to measure the plant in question and to send him the results as soon as possible so that he could describe it. This appears to have happened later the same day, or possibly early the following day. A scientific description of Phragmipedium peruvianum was then sent via email to the editor's office at the American Orchid Society's (AOS) headquarter in Delray Beach, Florida, for immediate publication in their flagship magazine, Orchids. As the message with the article arrived late on June 4, the editor had left the office for the day and did not see the description of Phragmipedium peruvianum until the following morning on June 5. When he recognized the importance of this message, the editor decided to pull an already set article about orchid stamps, and replace it with the description of the new orchid. The editor of Orchids reacted like any alert editor would have done when realizing that an unexpected and major scoop had been dumped in his lap; he rushed it into publication. Unfortunately for the author of Phragmipedium peruvianum, the publishing of *Orchids*, like for most other journals, can be a lengthy



Phrag. kovachii Photo by Lee Moore

process as manuscripts have to be sent elsewhere, printed and finally shipped to customers, so the world was not to learn about the exciting news for yet some weeks.

Parallel with the attempts to rush the publication of Phragmipedium peruvianum into press, Michael Kovach was trudging along on his own trail towards immortality, reaching the Miami airport late at night on June 4. He apparently declared that he was bringing plant material but was ushered through Customs without any thorough inspection, as sometimes happens, and suddenly found himself together with his wife and a glorious unknown orchid on U.S.soil. Early the next morning, on June 5, the couple left for Sarasota and Selby Gardens in a rental car. They arrived just before noon, where they met one of the herbarium volunteers, who eventually caught my attention and introduced me to the Kovachs and their plant. It did not take more than five seconds to draw some stunning conclusions about what was blooming in the hands of the proud and excited visitors. I then introduced the Kovachs to the rest of the staff at the OIC, which happened to be busy chatting with some local visitors. If the atmosphere had been "busy" before our entrance, only the Libby Besse entrance with her red-flowered Phragmipedium more than twenty years earlier can compare with the noise that followed; "Where did you get that?"...I have seen that before!"...Don't tell the Californians!"

After some intense discussions and exchange of information about the plant's origin, importation and legal status, it was suggested that the orchid could be described

and named after its scientific introducer - Michael Kovach, who had gone through considerable efforts to bring the plant to our attention. The new species needed a name after all, Selby Gardens could use the publicity, and naming the orchid after the first person that decided to bring the plant to scientific attention (and also declared that he had all necessary importation papers in order), seemed both appropriate and fair. (Coincidently, it also followed a century-old unofficial tradition of naming Phragmipedium species after plant explorers with difficult to spell European names: andreettae, boissierianum, czerwiakowianum, fischeri, hartwegii, hirtzii, pearcei, schlimii, tetzlaffianum, warszewiczianum etc.). After the departure of the Kovachs, a lengthy debate among the research staff took place where it was eventually agreed among all parties to go ahead and describe the plant as Phragmipedium kovachii, provided that a Peruvian scientist would be included as a co-author, and that the holotype, graciously donated by Kovach, was to be returned to the country of origin and deposited at a major orchid herbarium there. In short order, a description was written by John Atwood and Dalström, peer reviewed, and accepted for publication in Selbyana by editor Bruce Holst. A line drawing of the type plant was included, as well as a watercolor illustration and some color photos donated by Kovach. As no immediate issue of Selbyana was ready to be printed, it was decided that a special supplement in honor of the scientific scoop was appropriate, and also easy to print in-house without going through the lengthy process of having it printed and distributed from elsewhere. Publishing a supplement to a scientific journal was by no means a new invention. Ironically, the person who submitted the publication of Phragmipedium peruvianum to AOS Orchids issued the first supplement of Selbyana while functioning as the editor of the journal.

Phragmipedium kovachii Atwood, Dalström & Ric.Fernández was effectively published on June 10, in Selbyana 23(Suppl.): 1 (2002). Phragmipedium peruvianum Christenson was published in Orchids 71: 620 (2002), two weeks later, and due to the rules of the International Code of Botanical Nomenclature, the latter name becomes synonymous with the earlier published name.

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New Form of *Paphiopedilum* appletonianum from Vietnam

Paph. appletonianum (Gower)Rolfe f. tridentatum (S.C. Chen et Z.J. Liu)Aver

In 2001 S.C. CHEN and Z.J. LIU described in Acta Phytotaxonomica Sinica **39**(5): 455 a new species of the genus *Paphiopedilum* as *Paph. tridentatum*. The species differed from the near related *Paph. appletonianum* by the tridentate apex of the petals.

On April 18, 2003, V.X. PHIONG, L. AVERYANOV, and N.X. TAM et altera found this plant in the district Phu Loc in the province Thua Thien Hue in Vietnam. In the article "Rare species of Orchids (Orchidaceae) in the Flora of Vietnam" in Turczaninowia 9(3): 48 – 89; 2006 Leonid AVERYANOV published the new combination of *Paph. appletonianum* (Gower)Rolfe f. *tridentatum* (S.C. Chen et Z.J. Liu)Aver.

Different collections of *Paph. appletonianum* show different tips of the petals- acute, bedentate or tridentate. This new forma is distinct from the typical form by the petals with three distinct acute teeth at the apex. The other flower aspects and also the plant with marmorate leaves are the same as the typical form.

These plants were found later in different places in Vietnam and always show the same typical flowers. The plants grow at elevations between 800 and 1350m as terrestrial or lithophytic plants in sandy places in broadleaved evergreen forest.

Leonid Averyanov and Olaf Gruss

Literature:

CHEN Sing-Chi, LIU Zhong-Jian, ZHANG Jian-Yong (2001) A new species and a new variety of *Paphiopedilum* (*Orchidaceae*)' in Acta Phytotaxonomica Sinica **39**(5): 455 – 458

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All sketches from Acta Phytotaxonomica Sinica **39**(5): 456









2008 Paph Forum

The 2008 Paphiopedilum Forum, sponsored by the National Capital Orchid Society, began with a flurry of activity as slipper enthusiasts snapped up plants from sales tables as fast as the vendors could unpack. Once again, William H. Goldner, PhD. and Lynn Evans Goldner, MS, proprietors of Woodstream Orchids, served as co chairs for the twenty-eighth iteration of the event. The Forum venue, the U.S. National Arboretum in Washington, D. C., was uncharacteristically busy for this sixteenth-of-February winter's morning as exhibitors hurried to enter their plants for the show table so they could join the fray in the sales area. Modern retail techniques including barcoded price labels and high tech sales registers have replaced the old cash box and peel-off price stickers of the past.

Bill Goldner introduced the program which this year included Dr. Leonid Averyanov, professor of the Komarov Botanical Institute of the Russian Academy of Sciences, St. Petersburg, Russia; Mr. H. P. Norton, proprietor of Orchidview of Moncks Corner, SC; and Dennis D'Alessandro, owner of Gypsy Glen Orchids in Beaver, PA.

Dr. Averyanov presented a tour of orchid habitats of Viet Nam in his talk titled: "Natural Variations of Paphiopedilum Species of Viet Nam" and related his adventures living and exploring for months at a time in the Viet Nam wilderness. He is the well known co-author of the highly regarded book: Slipper Orchids Of Viet Nam and has published many new botanic discoveries, including Paphiopedilums, from this region. Dr. Averyanov, an accomplished photographer as well as botanist, screened many superb photographs of slipper habitats and maps of the indo-Chinese region to illustrate the variations and similarities of Parvisepalum Paphiopedilums.

H. P. Norton is internationally known as a premier breeder of Phalaenopsis. Serious orchid enthusiasts have discovered that he has been "dabbling" in Phragmipediums to further his desire to create red colors in his hybrid repertoire. He began Phragmipedium hybridizing in a small greenhouse behind his home where he could keep Phrag growing conditions separate from his much larger Phalaenopsis house. H. P. talked at length about his techniques for growing Phragmipediums. Contrary to the often stated warning to water plants early in the day, H.P. irrigates in the afternoon, believing that "this is how it happens in nature." While he has not had problems as a result, he cautions that this practice might not work for everyone.

He has quickly taken up the challenge of breeding with Phragmipedium kovachii and brought two superb examples to the Forum exhibit table - two clones of Phrag. Fritz Schomburg (kovachii x besseae), a hybrid registered by Piping Rock Orchids in March 2007. Both demonstrated enormous size (based on previous Phrag. besseae hybrids), superb form, and fine color and received AOS awards at the Forum. While the colors were in the salmon to coral range, we can expect H. P. to "unlock" the red in future Phrag. kovachii hybrids.

Dennis D'Allesandro divides his time between his nurseries in Pennsylvania and Ecuador with frequent travel to Indonesia, Southeast Asia, Malaysia and Europe. His talk titled "Catching Up On Parvisepalum Hybrids" had a double meaning. The first was to illustrate the recent Parvisepalum Paph hybridizing by focusing on the progeny of Paph. vietnamense and Paph. hangianum. The second was to ask the question: "Can we in North America ever catch up to the Europeans, Taiwanese and most of the rest of Asia in growing and hybridizing with the new Parvis? CITIES prohibits U.S. citizens from "possessing" most of the recently discovered slippers. He pointed out that we are at a serious disadvantage since growing and hybridizing them do not seem to be illegal anywhere other than the U.S. Most of the screened images were of the new Paph. vietnamense and Paph. hangianum hybrids, of which there are now about thirty of each. Dennis wishes to note with his thanks that many slides were provided by Olaf Gruss, who also has been a presenter at past Paph Forums..

The Slipper Orchid Alliance provided financial support for the speakers, which is greatly appreciated by the Paph Forum. For the second year it held a silent auction with donations from all of the vendors, and the SOA wishes to express its appreciation to them: Alan Salzman Orchids, NY; Bloomfield Orchids, NY; Floradise Orchids, VA; Gypsy Glen Orchids, PA; Marriott Orchids, NC; Orchid Enterprise, VA; Orchidview Orchids, SC; Parkside Orchid Nursery, PA; Woodstream Orchids, MD; Quarter Acre Orchids, VA (supplies); Celebrate Orchids!, VA (non-plant items).

Bryan J. Ramsay of California, Maryland, gave the traditional review of the previous years AOS awards to slippers this year. Bryan deftly combined the AOS's new digital image library with modern digital projection technology to show that slipper hybridizing continues in new directions and attracts the favorable attention of the AOS award system nationwide.

While everyone enjoyed the provided box lunch, judges and clerks were placing ribbons on the exhibit plants and screening for American Orchid Society judging. The Paphiopedilum Forum is an AOS sponsored show and judging event. Details and images of the ten awards given

at this Forum can be found in the AOS's next update of the AQ Plus program.

The SOA People's Choice trophy, a lovely handblown glass slipper orchid on a wood base, was awarded by attendees' ballots to a magnificent specimen of Paph. Leeanum 'E. G. Morris' CCM, CCE/AOS, owned by John Whiting of Somerset, Pennsylvania.

The final activity of the day was the discussion of the exhibit table, which featured over two hundred flowering slippers. Bill Goldner and Gordon Slaymaker were joined by Steve Shifflett of Floradise Orchids and Hadley Cash of Marriott Orchids in a "relay" discussion of the exhibit table and presentation of the ribbon and trophy winners. A detailed list of the extensive exhibit table categories can be found at the National Capital Orchid Society website: http://ncos.us.

As with the past years, kudos to all the members of the National Capital Orchid Society, especially Bill and Lynn Goldner, for their work in bringing off another highly informative Paphiopedilum Forum. Watch for the announcement of next year's Paphiopedilum Forum on the NCOS.US website.

SOA- Mid Americian Congress Meeting This Fall

The Slipper Orchid Alliance has been invited to participate in the fall meeting of the Mid-America Orchid Congress, which will be held in Cincinnati, Ohio, September 5-7, 2008. It will be hosted by the Miami Valley Orchid Society and the Greater Cincinnati Orchid Society at the Kings Island Resort and Conference Center in Mason, Ohio. Since there is no American Orchid Society Members Meeting this fall, this will be a good opportunity to visit a different section of the country where we have not previously held a meeting.

We have been scheduled for a meeting on Friday evening, September 5, at 7:00-9:00. Our meeting will be mainly informational and open to all registrants, but in addition we are fortunate that Dennis D'Alessandro, who divides his time between his nurseries in Pennsylvania and Ecuador with frequent travel to Indonesia, Southeast Asia, Malaysia and Europe, will talk about "Recent Slipper"

Orchid Discoveries and New Hybrids." We will also hold an auction during that time.

Following our meeting there will be a Plant Preview Party. Judging will be held on Saturday morning, and in the afternoon there will be three lectures: Fred Clarke (Sunset Valley Orchids, Vista, California) on "New Hybrids with Catasetum, Cycnoches and Mormodes; Dr. Ron McHatton (American Orchid Society Director of Education) on "Sex in the Greenhouse"; and Dr. Henry Oakeley (Past Chairman of the Royal Horticultural Society Orchid Committee and President of the Orchid Society of Great Britain) on "Orchid Hunting in the Headwaters of the Amazon, Central Cordillera of Peru." In the evening an auction will be followed by a banquet. On Sunday morning the topic "Compensating Speakers" will be discussed at an Affiliated Societies Breakfast. At 11:00 a.m. there will be a Judges Forum, and in the afternoon the International Phalaenopsis Alliance will meet 1:00-3:00.

Admission to the show on Saturday 10:00 am–5:00 p.m. and Sunday 9:00 a.m-4:30 p.m. is free, but registration is required to attend the lectures. Early registration by August 5 is \$80, and late registration is \$95.

There is an impressive list of vendors expected to attend as of this writing: Orchid Inn, Roberts Flower Supply, Natt's Orchids, Sunset Valley Orchids, Windswept in Time Orchids, Gypsy Glen Orchids, Brennan Orchids, Oakwood Orchids, Carter & Holmes Orchids, Norman's Orchids, J & L Orchids, Porters' Orchids, and Ecuagenera Orchids. Several of them will definitely feature slipper orchids. You may check the web-site for additions to this list. Also on the web-site you will find many area attractions listed.

Hotel reservations can be made by calling KIRCC at 800-727-3050. Ask for the group name Mid-America Orchid Congress. Our current information is that the rooms will be \$84 per night plus 12.5% tax.

For registration and more information, go to the web-site www.gardenersutopia.com/MAOC2008fall.

A Veritable Beast of a Problem - Greenhouse Thrips

We have all heard about or seen thrips – pesky and very tiny yellow to beige insects that can wreak havoc on orchid flowers and may also transmit some nasty diseases. Most flower thrips are found on outdoor plants and may only cause problems when they enter the confines of a greenhouse where a banquet of juicy orchid flowers awaits their voracious appetite. In warmer areas and especially during dry weather, thrips may also attack outdoor collections where flowers will bear the telltale silvery tracings of thrips' rasping mouthparts. Some thrips feed on orchid pollen and so may escape detection when hidden beneath the anther cap. Juvenile thrips are especially difficult to see since they are almost transparent and very tiny. Adults hop and fly so can be caught on sticky strips hung within the growing area. Judicious use of thrips-proof screening over greenhouse vents can keep most thrips from entering your collection from outdoors, but thrips can hitch a ride on newly purchased plants or those returning from a show. Vigilance is important!

Another challenge altogether are the so-called greenhouse thrips, Heliothrips haemorrhoidalis. These are tropical/sub-tropical parthenogenic thrips which are a known pest of orange groves from Florida to California. Greenhouse thrips also have a healthy appetite for orchid flowers and foliage in collections throughout the world. High on their menu are those juicy new leaves emerging from a fan of *Phragmipedium* or *Paphiopedilum*. Greenhouse thrips also love Cattleya, Epidendrum, jewel orchids, Sobralia and a range of other plants, so beware! They could hitch a ride on almost any orchid or greenhouse plant. This pest has spread insidiously through our orchid collections, and where it has found a home, the result is not pretty. As the specific epithet implies, a telltale sign of its presence is a tortured swollen lesion which develops where eggs have been inserted into a leaf (Fig 1). In slipper orchids, eggs are laid preferentially in the axil of a new growth where lesions may not form or be so obvious, but eggs could be laid almost anywhere on a plant, especially with heavy infestations. Tissue damaged by feeding thrips will be disfigured, and new growths may stop growing entirely or become subject to injurious rot. The very tiny nymphs feed together where they have hatched (Fig 2). Older nymphs may migrate but generally move very little before they reach adulthood. Heliothrips nymphs exude drops of colored liquid. These drops are displayed defensively when the thrips are alarmed, but raised fluid-tipped abdomens help us see the pests.





Figure 1 – Typical swollen lesions where *Heliothrips* eggs have been laid. Photo by Michael MacConaill



Figure 2 – Greenhouse thrips nymphs. Photo by Marilyn Light



Figure 3 – Adult greenhouse thrips are small but quite easy to see. Photo by Michael MacConaill

Because the fluid is often brightly colored with plant pigment, magenta speckles can remain long after the nymphs have departed. If you see speckles, search for the pests immediately. Greenhouse thrips gradually become dark brown to black as they mature, when they may be more easily seen on leaf undersurfaces or in new growths (Fig 3). Remember that only one thrip is needed to start an infestation. Complete elimination of all thrips is essential to achieve control.

What rarely works:

Sticky strips do not work because adults are weak fliers so are unlikely to be caught on the strips. Contact insecticides are unlikely to work because the thrips are most often hidden within leaf axils, bracts and folded young leaves where they are unlikely to be contacted by insecticides.

What does work if you have time and patience – and only a few plants:

Capturing adult thrips on leaf undersurfaces using a moistened or sticky fingertip, then crushing the pest works but you must examine plants often over several weeks or months to eliminate all adults and nymphs that were missed first time around. Thrips can hop and hide so you must be quick. There is plenty of incentive to learn!

Regular examination of plants for damaged foliage and telltale colored droplets of past infestation is effective. Each fan should be examined, one leaf at a time, with a careful spreading of bracts and examination within the base of each leaf to see if any nymphs or adults are present. Check the inflorescence and floral bracts also as there may be thrips within. Baby thrips are white and move slowly so it takes a sharp eye to spot them. Look, watch for any sign of movement, then check on what you are seeing using a magnifying glass or loupe. Check all leaf undersurfaces first, then each growth individually for the presence of any thrips. Any adults can be killed by crushing. Delicate juveniles can be caught with a moistened toothpick but take care not to damage leaves. Heavily infested inflorescences should be removed and disposed of in a sealed plastic bag. It sounds like a tedious approach, and it is, but you will regret not taking aggressive action where this pest is concerned.

What could work if you have a large collection:

Only one effective natural enemy is known to attack greenhouse thrips, and this is particularly useful with larger infestations where the tiny parasites have lots of thrips to eat. *Thripobius semiluteus* parasitizes thrips larvae. Other parasites include the predatory thrips species, *Franklinothrips orizabensis*, *F. vespiformis*, and *Leptothrips mali* but some can attack only particular stages of thrips. The colored droplets produced by nymphs deter feeding by these predators. Biological control agents are now widely available but types being sold may vary with locality. Enquire locally.

Getting rid of greenhouse thrips is not easy. It is far better to ensure that they never get into your collection.

References

http://creatures.ifas.ufl.edu/orn/thrips/greenhouse thrips.htm

Marilyn H. S. Light

Wild Cypripediums in China

A short account of a guided tour in June 2007

What Cypripedium enthusiast, if given the chance, would pass up the opportunity to join a group searching for Chinese species in their native habitats? How much more tempting would it be if there was a possibility of seeing 15 species in the space of a month (more than the total for North America) and that at least a couple were so rare that very few westerners had ever seen them in the wild? Add in other orchid and wildflower species in abundance, stunning terrain, strenuous exercise, good food and a great cultural experience and it becomes an easy choice to make for many of us.

At the beginning of June 2007, my wife and I joined an international party led by Dr Holger Perner and his wife Wenqing. The group was made up of Australians, Canadians, Germans and one Swiss with four young Chinese professionals and graduate students. We were 16 in all, counting our leaders, enough to fill a small bus on our occasional trips between one orchid site and another. The tour started at Kunming in Yunnan province and ended in Chengdu in Sichuan province, four weeks and hundreds of miles later.

The first objective was sites west and northwest of Kunming at altitudes between 6,500 and 11,200 feet. After a week we had seen eight species of Cypripedium – margaritaceum, lichiangense, tibeticum in a variety of color forms, yunnanense, flavum, forrestii, guttatum and plectrochilum. Cyp. guttatum is the only one which North America (Alaska and British Columbia) shares with China, but Cyp. plectrochilum is close taxonomically and similar in appearance to Cyp. arietinum, the rams head

slipper orchid. Other orchids found at various sites were species of Amitostigma, Cephalanthera, Oreorchis, Ponerorchis, Herminium and Phaius.

After flying from Kunming to Chengdu, our first stop, at Luding, southwest of Chengdu, yielded a rare find: at an altitude of just under 7,000 feet (2,100 meters) - plants of Cypripedium wardii. Since its discovery (by science) and description in 1913, by Frank Kingdon Ward, ensuing revolutions and world wars have prevented many further visits – my wife and I were the first North Americans to see this beautiful little orchid in the wild! Sadly, it lives close to cultivated fields and is subject to collecting by local residents who profit from the illegal trade in rare wild orchid material.

A long journey back via Chengdu and to the north took us to Wolong and a short visit to the panda sanctuary there before driving up to the Balangshan Pass at about 11,700 feet (3,600 meters). At the start of the ascent, Cyp. franchetii was found at the roadside and a dark-purple variant of Cyp. tibeticum in the alpine pastures at the top. Other orchid species of Amitostigma, Ponerorchis and Habenaria were found as well as a single plant of Androcorys pugionoformis, a "first" for Dr. Perner in the wild.

From Wolong, our party traveled to the Huanglong valley and a remarkable national park that is a haven for a variety of orchid species. Within the park, Holger and Wenqing Perner maintain a nursery dedicated to the propagation and ex-situ observation of Cypripedium species. Large colonies of Cyp.flavum, Cyp. tibeticum and Cyp. bardolphianum flourish between streams flowing over tufa rock. In the Danyun Gorge of the park, small groups of Cyp micranthum and Cyp. sichuanense were found. Other orchids found in this area were Coeloglossum, Platanthera and Epipactis species.

The final site on this extraordinary trip was the Wanglang panda reserve. After spending a few hours amongst plentiful specimens of Cyp. tibeticum and Cyp. bardolphianum, plants of Cyp. calcicolum were found. But the highlight of the day was yet to come – Cyp. farreri had been spotted by Holger! The party then trekked up to the head of a dry valley where, ten feet (3 meters) up a cliff, a few plants of this spectacular species could be seen. First found and described by Reginald Farrer in 1915, it is even rarer than Cyp. wardii and had not yet been "rediscovered" by Holger, even after 10 years of fieldwork in China. Again, our party was among the first westerners to see this beautiful plant in its native habitat.

Our final visit, back in Chengdu, was to the orchid laboratory and nursery run by Holger, in which in vitro propagation, hybridization and pollination of orchids are being done. This work is vital for the survival of orchid species in a rapidly growing society where all look for opportunity to gain, even by the illegal uprooting and sale of plants.

This short note has no room for describing the scale and speed of development in both urban and rural China, nor the tourist stops made and the excellent food eaten; worth mentioning also might have been the rural sanitation, dangerous roads and drivers - all, too, part of the adventure! Many great finds were made of non-orchid plants. It is hard to convey the blend of exhilaration and exhaustion felt every day, but it is safe to say that the whole party's expectations were met and exceeded. Gratitude is expressed to Holger and Wenqing for making this trip of a lifetime possible, and also the sincere hope that their important work continues to find support at home and around the world.

Holger Perner Ph.D. plans further orchid tours and can be reached at 3-11-904 Yingduhuayuan, 8 Xinguan Road, Chengdu, Sichuan 610041 China (email holger_perner@hotmail.com).

Tim Johnson Ph.D. is a retired horticulturist and his wife, Michelle Wan, writes murder mysteries with a slipper orchid theme. They live in Guelph, Ontario, Canada.



The group of orchid hunters (Holger Perner is in a black tshirt in the back row; Wenqing Perner stands in front of the sculpture)



Cypripedium margaritaceum



C. tibeticum, a widespread and variable species in southern China



Cyp. flavum







Cyp. sichuanense

Cyp. farreri

A group of Cyp. tibeticum





Cyp. plectrochilum, a close relative of North America's C. arietinum

The "golden" variety of Cyp. tibeticum



Cyp. wardii

Cyp. bardolphianum with yellow flowers



Cyp. calcicolum



Supporting Members

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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