



# The *Slipper Orchid* *Alliance Newsletter*

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## What is BIBLIORCHIDEA?? An Orchid Database

by Rudolf Jenny

Literature is still playing a major role in science and research, on one hand because it is a documentation of research already done and a demonstration of the results. On the other hand it is also a record about recent research. At least for the time being, literature search is a part of any scientific work or project. Whoever has done literature search knows about the difficulties to reach an overview of the literature in connection with a project in an acceptable time and with acceptable effort. Computer technology today provides us with a large selection of very helpful tools to limit time and effort for literature search.

As explained above, literature still plays a very important role in science. In this context the term literature should not be defined too narrowly; we have to accept a very broad collection of publications as literature. In botany – and in orchidology as a division of botany – we find:

Scientific periodicals, occasionally with articles about orchids

Scientific periodicals in the botanical field, occasionally with articles about orchids

Orchid periodicals, with at least partially scientific content

Society publications (Orchid Societies)

Dissertations

General floras or orchid floras

Proceedings, abstracts and reports of congresses and symposiums

Catalogues of all kind

Travel and expedition reports

Textbooks and basic research publications

Bibliographies and biographies

Correspondence and letters

Botany as an independent scientific discipline is not very old. For centuries, botany was together with other natural sciences like zoology or geology, always a part of medicine or part of a general study in natural sciences. The oldest European botanical literature was always very closely connected with medicine and pharmacology. In that time orchids were treated as a mere curiosity of nature and, in a limited number, as part of pharmacological publications like herbals. Only a few publications devoted to orchids alone are known before 1800; after this time we see a fast increase in the number of publications devoted only to orchids. Today we have more publications about orchids than about any other plant family. Because of the more and more interdisciplinary connection of botany with other natural sciences like chemistry, biology or zoology, the content of publications about or in connection with orchids has also become much broader.

As in many other sciences, also in botany the pure generalist does not exist anymore. One result of the ongoing specialization in botany is the fact that the term botanist is no longer a synonym for classification, systematics or taxonomy. Thus the existing literature becomes less and less manageable, and it is more and more difficult to avoid repetitions in publication and research.

Today it is almost impossible to keep track of the enormous numbers of publications, in spite of the fact that we have tools like the internet at hand. One would think that based on the available data processing technology it should be possible to solve this problem in a simple way by building up databases or computerized bibliographies. This is not the case, and the reason can be found in the philosophy and structure of such a database. We have to consider the enormous variability concerning the content of orchid literature, which can be found associated with the following topics:

Classification, systematics and taxonomy  
 Nomenclature  
 Genetics, molecular biology, DNA-analysis, enzymatics  
 Anatomy and morphology  
 Phytogeography, distribution, mapping  
 Evolution, speciation, population dynamics  
 Interactions plant - animal, pollination ecology  
 Symbiosis, mycorrhiza  
 Phytochemistry, fragrance, pigmentation, pharmacology  
 Vegetation biology, habitat, ecology  
 Physiology  
 History  
 Hybridization, breeding, commercial aspects  
 Culture  
 Propagation, micropropagation, tissue-culture  
 Protection and conservation

Naturally this list is not complete by any means, but it shows the very complex interdisciplinary connections in orchidology and the enormous spectrum of contents of publications about orchids.

An electronic library or literature database may include a very wide selection of publications from all the above mentioned fields, not only about orchids but about botany in general. Such a database would be very broad but not deep; to use a metaphor, it would be a rather flat disc with a large diameter. The lowest level in such a database would be the family *Orchidaceae*. Such a database would produce a large amount of general information, but it would be very inefficient for an orchid specialist, because a search for a combination of keywords like “molecular biology” or *Orchidaceae* would end up in a vast and confusing number of citations. The search for the combination “molecular biology” and *Orchidaceae*, on the other hand, would end up in a small but incomplete number of citations.

The opposite of such a “general” database is a “special” database; in this case it would also contain publications from all the above mentioned fields but only such documents in connection with *Orchidaceae*. To use a similar metaphor, this database would be like a cylinder, very deep but with a limited diameter. Such a database is built especially for users interested in *Orchidaceae*; for other users the result of a search would be too specific.

The structure of a computer-based bibliography is variable in detail, but the overall principle is always the same: the possibility to search for literature based on different criteria. The question whether the entire publication, the summary

of a particular publication or simply the citation together with keywords is available in a database depends only on the availability of the literature itself and the situation concerning copyrights.

Older literature is already in the public domain; the question is whether the effort to scan such publications is proportional to the number of accesses by the users of the database. To scan a very old book will be difficult by any means and the effort is high. It would not make sense to spend time and money for a very few interested users only.

The size of a computer-based database is basically a function of two parameters: the human resources – time and financial support – of the institution which is maintaining the database, and the availability of publications fitting in the framework of the database. Especially the financial point is the limiting factor for size and completeness of an electronic database. The more specialized this database should be and therefore the fewer potential users one may expect, the more difficulties an institution will have to obtain the financial resources. This criterion is - at least for the time being - independent from the available technology. The question about the completeness of a computer-based literature database in science is therefore easy to answer: the narrower the definition of the content the higher the degree of completeness; the broader the definition, the less complete the database will be.

Another criterion to judge the quality of a database is the strict neutrality concerning the importance and quality of the included publications or documents. It is commonplace that those who are maintaining a database will usually have their own ideas about importance and quality of the content of publications they include. Their ideas will most likely differ from the opinions of the users. It is therefore paramount to avoid any valuation of publications; if such documents fit in the definition of the database, they have to be included. It is strictly up to the user to make the selection and judgment of the content of a given document.

A third criterion is the consistency of a given database. It is important that the internal organization of a database is consistent and that the procedure of adding new documents guarantees consistency. In other words, a given document should have the same keywords and the same form, no matter by whom or when the entry was included in the database.

In order to understand what system and philosophy a database should follow, we need to understand the needs and wishes of the user. Everyone who was sometime or other in a position to do literature research for a project or publication knows exactly how time-consuming and often expensive this task can be. Such a process can be divided

into two very clearly separated phases. The first step is to provide a list of publications or citations in connection with the target of the planned work. The second step is to obtain the important publications in full insofar as they are really needed.

The first phase often is extremely time-consuming, because such information has to be compiled from different physical sources or electronic databases. With the exception of BIBLIORCHIDEA, there is no existing comprehensive database or bibliography of literature exclusively about or in connection with orchids in all aspects. As an example, the Index Kewensis covers all taxonomic first descriptions of plants including the members of the orchid family, but there is no information about available monographs or revisions of a given orchid genus. Dissertations are covered by specialized databases of their own, and information about publications from interdisciplinary fields such as molecular biology is not or only in parts included in databases about botany. The search for literature will therefore end up in a more or less long excursion through different computer-based databases or printed sources. Unfortunately, most of those databases will have a different system, a different user interface and different search engines.

The second phase, the acquisition of the “real” literature based on several lists of citations, is also often rather difficult and time consuming. Usually public or university libraries will deliver on request exactly what the customer orders, nothing more and nothing less. If the citation is wrong or incomplete the customer will get a wrong or incomplete response. Occasionally the library will ask for more detailed information.

The sheer number of definitely wrong literature citations in publications is amazing and frightening; the range spreads from invalid or incomplete abbreviations to wrong volumes, wrong authors and wrong page numbers. Obviously the process of search for literature has become so time consuming and expensive that in order to save time authors are copying citations from other sources without ever having seen the literature itself. It is a valid question whether this is a scientifically acceptable way to work, but it does show the problems a scientist may face to collect the necessary literature for a given project in acceptable time.

Even if a good literature collection is at hand, the problem is not solved; the search for certain things without clear citations in available literature is time consuming. It seems to be clear that today no library can employ an orchidist in order to handle orders for orchid literature, and there are many other plant families with exactly the same problem. It is also clear that library staff cannot spend time to check in detail all unclear or incomplete orders from customers. There is but limited time available; if it cannot be spent the

order goes back to the customer with an explanation.

There is one consequence out of all these facts: search for literature in an acceptable time and with acceptable effort can be done only by using a specialized database with a library in the background in which we find physically all the documents or publications included in the database and a staff who is specialized in this area. The combination of library, database and specialized staff is paramount.

For the people maintaining the database it is important to know what the potential user needs. In this respect the spectrum is very broad. From a simple search for the correct spelling of a certain epithet to a search for literature as basis for a monograph or dissertation, almost everything should be possible. The structure of the database should ensure that questions from across this spectrum can be answered. Because no database is complete, it cannot be expected to get a complete list of publications about a certain issue, but the list has to be complete enough for a start.

Based on the fact that the time available for literature search is limited, the project BIBLIORCHIDEA has been developed over a period of about 18 years. The inner structure of this computer-based bibliography and the story of its development are good examples to show how a “special” database is built up. At the beginning it was a very simple structured list of available books and periodicals in an already rather large private orchid library; the main target was to ensure that the same book was not purchased or ordered twice. There was no connection of the entries by selected keywords, and the goal was only to get fast information whether a certain publication was available or not.

In a second step, this list was integrated into special, professional software for library management. At the time the software used, LIDOS, was one of the most sophisticated and powerful tools available in this field. Very soon it became clear that the capacity of this software would allow a much better and finer definition of the integrated entries or documents, and with this a much deeper and further use would be possible. It would result in much more than just a list of publications available from a library. So all the necessary information to order or to find a given publication has been added as well as information about author, co-author, year of publication, title, editor and publisher.

Another important point was the selection of the standards on which citations would be based. For plant names Index Kewensis is the standard, for single publications (books) it is STAFLEU's Taxonomic Literature, for periodicals and journals it is BPH (Botanico Periodicum Huntianum, list of botanical periodicals from the Hunt-Library) and BPH-supplement, and for everything in connection with herbariums it is Index Herbariorum.

In the next step a keyword catalogue was built up; this collection of keywords would allow a search for literature based on its content. Right from the beginning a hierarchically organized structure was chosen, which would make it possible to select the appropriate degree of selectivity for each search. The difference between a search for all publications about orchids in Europe, or orchids in Switzerland or orchids in the area of Zürich is quite obvious. For Europe as keyword we would end up with virtually thousands of documents, for Switzerland still with hundreds and for Zürich probably only some twenty documents. This hierarchical structure allows the user a very specific search with a manageable and clear number of answers or documents. Today there are six different levels in the keyword catalogue, as this example will show:

1 <sup>th</sup> level (main keyword)	Geography
2 <sup>th</sup> level	North America
3 <sup>th</sup> level	USA
4 <sup>th</sup> level	Florida
5 <sup>th</sup> level	Everglades
6 <sup>th</sup> level	Green Hammock

Very soon it became clear that with this structure it would not be possible to integrate periodicals or journals. Hence in a next step all entries concerning periodicals have been removed and replaced by the article in the periodical itself. In order to integrate the correct citation of a particular article, a new submenu or field in the entry menu had to be created and the title of the periodical was consequently integrated into the keyword catalogue. With this change a search for a particular article and a search for all articles in a particular journal have become possible. This step of integrating articles required enormous effort. Between 1841 and 1902 the well-known journal *Gardeners Chronicle* alone contained not less than some 12,000 articles about or in connection with orchids, the reports about the sessions of the Orchid Committee of the Royal Horticultural Society not included! Today BIBLIORCHIDEA contains about 150,000 articles from about 1,400 different journals and periodicals. Some of these journals are integrated completely, meaning from volume one up to the recent number or volume with all articles [e.g., *Orquidea (Mex)* and *Orquidologia*]. Of other periodicals all articles in connection with orchids are integrated (e.g., *Selbyana*, *Botanical Leaflets Harvard University*), and of some only the known articles about orchids are integrated (e.g., *American Journal of Botany*). The main problem here was access to the primary literature; some of these journals are rather difficult to obtain because they are old or because they are not very widely circulated in libraries. Together with the titles of the journals the keyword catalogue increased to a number of some 30,000 keywords.

At the same time another submenu or field in the entry

menu was introduced. In the field “species and below” we find an alphabetical list of all new taxa below generic level described in the particular publication or document. This part is in fact something similar to the Index Kewensis, but the information is neutralized. That means the information is not whether a certain new taxon is valid or not, according to the rules of botanical nomenclature, or whether it is a synonym of something else; the information states just that the particular author had described this particular taxon in this particular publication. Again, it is up to the user to evaluate the information. Right from the beginning varieties, formae and subspecies have also been included; these names are not included in the older volumes of the Index Kewensis. In the meantime about 65,000 taxa below generic level are included in BIBLIORCHIDEA. It is estimated that approximately 80 % of all described taxa below generic level in the orchid family are already accessible. Naturally, also all taxonomic first descriptions of entities between species level and subfamily (e.g. genus, subtribe, tribe, hybrid genus) are included in the database; these entities are integrated in the field “above species.”

The fast growing keyword catalogue showed that in some cases an explanation of the keyword personal names, an explanation was necessary. Especially in some categories of keywords like titles of periodicals or individual of the keyword becomes important. The reason is that by definition keywords have to be short and clear - no sentences - and that, wherever abbreviations are used, the complete, rather than an abbreviated term, has to be available also.

The example of the BACKHOUSE dynasty in England shows very clearly why such explanations are important. The names of all three members of the BACKHOUSE dynasty are included as keywords. All three have the name James BACKHOUSE; the only difference is the date of birth and death. To avoid mistakes, the commentary to those three keywords explains exactly which James BACKHOUSE was father, son or grandson.

These commentaries are accessible through the keyword catalogue. Especially important are the commentaries in the categories hybrid genera (parents and valid RHS abbreviations), individuals (personal data), book series and periodicals (abbreviations based on BPH and information about changed titles). The commentary on the title of a given periodical contains the full title of the journal, the official abbreviation from BPH, information about the time and extent, and information about a possible succeeding and preceding title of the journal, again with full changed title, BPH abbreviation and extent. With this information a journal is defined in a very clear way, which is important considering the fact that rather often titles of journals are quite similar (e.g. *Orchids* (American Orchid Society), *Orchids* (South Africa) and *Orchids* (Australia)).

Another change was the decision to integrate iconographies, like *Lindenia* or *Icones Plantarum Tropicarum*, not as a complete and single document, but by plates, meaning every single plate was treated as a document of its own. With this decision, again the number of entries or documents was increasing dramatically; the second edition of the field guide of the *Orchids of Venezuela*, published in 2000, alone added some 1,100 new documents to the bibliography. Together with this increase, the content of information also increased. It was now possible to search at the level of single species and to find very fast an illustration of a particular plant. The plate by plate introduction of complex publications like the above mentioned *Orchids of Venezuela* and *Icones Plantarum Tropicarum*, or like *Flora Brasílica*, *Flora Brasiliensis*, *Venezuelan Orchids Illustrated* and many others, was completed after about one year. The result of this task is the possibility to gain much more detailed literature citations.

The very fast development in computer technology and also the availability of better and more sophisticated software in connection with the fast growing importance of the internet were responsible for another decision about the future of BIBLIORCHIDEA. The existing database in its original DOS-based interface was available for interested users for several years under the name LITBUL. In order to keep BIBLIORCHIDEA up-to-date because of the large number of new publications and because the structure especially of the keyword catalogue was changed and enlarged from time to time, a simple upgrade for the user was not possible. The only solution was a complete renewal of BIBLIORCHIDEA at least once a year. With this interval the database was in the worst case about one year behind. The process of creating renewals was expensive and not very efficient. Since the value of such a database is measured also on its being up-to-date, it was very important to find a way to maintain it in "real-time" via the internet. Beside this, the DOS-based software was old. It was not possible to get printouts of a search result in an easy way without data-transfers into word processing programs, and it was not possible to use the mouse.

This overall unsatisfying situation could be changed only by a fundamental change of the software environment. Consequently, the decision was taken to extract all the data from the old software and to put them in a totally new software environment and make the new form accessible through the internet. Today new entries, corrections or changes in the data are done directly via internet. As a result of this on-time maintenance, BIBLIORCHIDEA is up-to-date all the time.

Naturally, BIBLIORCHIDEA is not complete, and there is much doubt whether it ever will reach completeness, but it will grow continuously. Some orchid journals, such as

*Orchid Review* or *American Orchid Society Bulletin*, are not yet completely integrated, and for other periodicals we still are looking for missing volumes.

On the other hand, many periodicals are already in the library but not yet included in BIBLIORCHIDEA. The limiting factor is not only the time; it is also the availability of the literature. In order to add new entries or documents, we need a physical copy of the original publication; without this we would copy old mistakes and we could not define the keywords. For the next five years we will have about 10,000 new documents per year; of these about 2,500 will be new publications and about 7,500 old publications which have become available. With about 180,000 entries we will reach a platform; the increase per year will then be reduced to about 2,500 new publications and about 500 old ones. Probably we will then have the time to reprocess some documents with the goal of a further and finer classification. Especially some of the fundamental works about orchids, like Schlechter's publications in Feddes Repertorium, we would like to divide into smaller parts. Today BIBLIORCHIDEA contains about 170,000 documents. Included in this number are articles from all kinds of periodicals, books, single publications, catalogues, dissertations, checklists, manuscripts and iconographies. All these documents, as far as they have been published, are included in a form with enough information to order them through a public or scientific library. All of them are also represented in our library as physical copies. One of the hopes for the future is that authors all around the world will realize that the best way to make their own publications known would be to send us a copy in order to add it to BIBLIORCHIDEA as fast as possible. This is especially important for publications which are not widely distributed, like dissertations.

The actual form of BIBLIORCHIDEA as it is accessible through the internet, (<http://orchid.unibas.ch/bibliorchidea/pages/applet.php>), will allow the user different kinds of search or also the connection of different search methods. These are:

- Direct search for author and co-author
- Direct search for the year of publication (selection direct or in a time-window)
- Search with text-input in the fields Title, Literature quotation, Editor, Publisher, Above species and Species and below (free-text search)
- Direct search for new descriptions in the respective fields Above species and Species and below
- Search for keywords by direct selection from the keyword catalogue as single keywords or in connection with other keywords by using the connecting terms and /or (Boolean connections)

Enlarge the result by using one of the above mentioned methods.

Restrict (decrease) the result by using one of the above mentioned methods (Decrease to and Decrease by – functions)

Besides the search mechanisms, the software naturally allows the sorting of results by different criteria and printing a list of documents or a single document with all the detailed information. The important addition is the fact that all documents the user can find in BIBLIORCHIDEA are also available as physical copy; hence very fast access is guaranteed.

According to rapid technological developments especially in information technology, it is extremely difficult to guess what developments a database like BIBLIORCHIDEA will see in the next years. Certainly BIBLIORCHIDEA will remain a most important tool for everybody who needs orchid literature for profession or hobby.

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## ABOUT THE AUTHOR

Rudolf Jenny is a chemist by training and was active in environmental and ozone technology until his retirement in 2008. He has been working with orchids for more than 40 years and had a large collection of tropical orchid plants until 1995. Over many years, he has traveled in Central and South America in connection with his studies in pollination ecology and taxonomy. He has published some 450 articles in many of the world's leading orchid journals and published monographs of the genera *Gongora*, *Stanhopea*, *Paphinia* and *Sievekingia*. He is a regular lecturer at conferences around the world and owner of one of the most complete orchid libraries in private hands. He maintains BibliOrchidea, the world's largest and free accessible database for orchid literature with more than 170,000 entries, covering about 90% of the existing literature (<http://Orchid.unibas.ch/bibliorchidea.index.php>). He is a research associate at the Jany Renz Herbarium, University of Basel, Switzerland; honorary member and secretary general of the European Orchid Council; honorary member of the German Orchid Society; fellow of the Orchid Society of South-East Asia; and member of the Orchid Committee of the Royal Horticultural Society. In addition to orchids, cave-climbing has been a hobby for many years.

## FINDING NEW SPECIES INFORMATION IN BIBLIORCHIDEA

Go to <http://orchid.unibas.ch/bibliorchidea/pages/applet.php> (you will be asked to register) and enter BibliOrchidea

Click on "SearchKeywords"

Type "Ga.Paphiopedilum" or any other word

Click search (the field with the blue center); the program will show you all keywords including the word or the letters you typed

You will see the keyword tree with the keyword(s) you have searched for in bold

Double click on Ga.Paphiopedilum

The keyword will show up in the white field

Go to the field "Search" (bottom) and click

You will get a list of publications in which a new Paphiopedilum is described

If you want only the newest descriptions you click on "search author/year"

You type 2011 (or 2010-2011) in the field "year"

Go again to search but before you do the search click on "search in results"

You will get a list of all Paphiopedilum new descriptions published in 2011 (or 2010 and 2011)

Exactly the same process can be done for the keywords

Co.Paphiopedilum (new combinations)

Var.Paphiopedilum (new varieties or subspecies)

For.Paphiopedilum (new forma)

Stat.Paphiopedilum (new taxonomic status or level)

Naturally you can select more than one keyword for one search (e.g., Ga.Paphiopedilum, Var.Paphiopedilum, etc.)

I am quite sure that more than 99 % of the Paphiopedilum descriptions are included in the database. Try it; you cannot do anything wrong. Don't hesitate to contact me if you have problems or – very important - if you find mistakes and errors. Please be always aware that I am the chronicist and nothing more; I don't say a description is valid or not. I only state that this particular author said in this particular publication that this is a new species or variety, etc.

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**32<sup>nd</sup> ANNUAL PAPHIOPEDILUM FORUM**

By Gordon Slaymaker

The 32<sup>nd</sup> Annual Paphiopedilum Forum was held on Saturday, Feb. 18, 2012 at Behnke Nurseries in Beltsville, Maryland. (The usual venue, the National Arboretum, has been closed for over a year for renovations.) The event followed the traditional format of presentations, slipper sales, ribbon and AOS awards, raffle drawings, and exhibit table discussion.

Keynote speaker for the event was Dr. Holger Perner, a native of Germany currently living and working along with his wife, Winqing, in southwest China. In addition to his many publications and book collaborations, Holger and Winqing lead extraordinary walking tours of orchid habitats in the Chinese mountains and countryside. They are proprietors of Hengduan Mountains Biotechnology, where they produce a wide range of Chinese orchid species and hybrids for export. Slipper lovers are undoubtedly pleased that Dr. Perner has made it possible for citizens of the USA to legally import some of the newly discovered Chinese *Paphiopedilums* that previously were unavailable due to CITES regulations. Dr. Perner's presentation included the many *Paphiopedilum* species endemic to China. Of particular note were stunning photos of masses of literally thousands of *Paph. hirsutissimum* v. *esquirolei* growing and blooming *in situ*.

Arnold Klehm, of Hampshire, Illinois presented a survey of complex hybrid *Paphiopedilums* that he has produced at Klehm Growers, Inc., where he serves as vice president. His generation of standard/complex *Paphs* has garnered many AOS awards, and they often bear cultivar epithets from the fanciful "Looney Toons" cartoons. Klehm Growers, Inc. has registered nearly one thousand orchid hybrids and is one of only a few still producing this type of slipper.

Eric Sauer, a horticulture professional in the Columbus and Dayton, Ohio area, has been a serious orchidist for over twenty years. He presented a review of *Phragmipediums* and attempted to clear up some of the taxonomy confusion of species with problematic names. Eric finds the semi-hydroponic method of growing many *Phrags* to be very successful.

Bryan Ramsay of California, Maryland, gave an overview of recent American Orchid Society awards to slipper orchids demonstrating that *Paphiopedilum* and *Phragmipedium* still command significant attention from hybridizers and the AOS judging system.

The Slipper Orchid Alliance, as usual, held a successful silent auction. Many thanks go to our donors: Hadley Cash (Marriott Orchids, NC), Glen Decker (Piping Rock Orchids, NY), Bill Goldner (Woodstream Orchids, MD), Arnold Klehm (Klehm Growers, IL), Ken Meier (Orchid Enterprise, VA), Nancy Mountford (Cove Corporation, MD), H. P. Norton (Orchidview Orchids, SC), Holger Perner (Hengduan Mountains Biotechnology, China), John Salventi (Parkside Orchids, PA), Eric Sauer (River Valley Orchids, OH), Steve Shifflett (Floradise Orchids, VA), and John Whiting (PA). The final activity of the day was the discussion of the exhibit plants and ribbon winners from which there were several AOS awards. The discussion was led

by Bill Goldner along with Arnold Klehm, Stephen Shifflett and Gordon Slaymaker.

The plant named best in show by the judges was *Paph.* (Elfstone x Alchemy), which received an AM/AOS of 88 points. It was exhibited by Hadley Cash of Marriott Orchids, Kernersville, NC. *Phrag. Sedenii* (*longifolium* x *schlimii*), shown by the U.S. Botanic Garden, was named the best plant for culture. The SOA People's Choice Award went to *Phragmipedium* China Dragon (Grande x *besseae*), owned by Jeff Morris of Earlysville, VA.

Kudos again to co-chairs Bill Goldner and Lynn Evans-Goldner, as well as the National Capital Orchid Society, for organizing and sponsoring another successful and informative symposium on slipper orchids.

**ABOUT THE AUTHOR**

Gordon is an accredited AOS judge and is a past Chairman of the National Capital Judging Center. He was Chairman of the Paph. Forum for many years.

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*Phragmipedium* China Dragon  
Winner of the SOA People's Choice Award  
Owner and Photo: Jeff Morris

## 15th EUROPEAN ORCHID CONGRESS

By Olaf Gruss

Translated by Judith Rapacz-Hasler

The Hungarian Orchid Society made every effort that the 15<sup>th</sup> European Orchid Congress held in Budapest, April 12-15, 2012 was an attractive show with numerous exhibits. Unfortunately many past exhibitors did not attend; the displays were created mainly by participants from Germany, Italy and of course Hungary, and there were no exhibitors from England and France. Perhaps their absence was a sign that only a few businesses are in a position to arrange attractive orchid displays in distant countries. However, visitors came from around the world. Especially guests from Austria, Germany and the former East block countries - Russia, Poland, the Czech Republic and White Russia - were represented in great numbers. For the friends of slipper orchids there would have been hardly anything new to see if not for the display of Franz Glanz, who exhibited an abundance of exceptional cultivated hybrids and species of the genera *Paphiopedilum* and *Phragmipedium*.

Judges came from many European countries to evaluate the best displays and plants according to the German judging system. Among the species a *Paphiopedilum armeniacum* in the display of the Italian Orchid Society received a Silver Medal. In addition, a *Paph. rothschildianum* and an exceptional *Paph. emersonii* in the display of Franz Glanz received this honor.

A large *Paph. hangianum* as well as an extraordinary *Paph. delenatii* forma *vinicolor* in the Franz Glanz display did not receive any medals. *Paph. delenatii* was not awarded because of the inferior blossom form; however, it showed an unusual wine-red marking at the tip of the dorsal sepal and a very strong and pleasant fruity fragrance. One can only hope that this clone will be used in breeding new hybrids for fragrance. Very interesting was a seldom shown *Paph. victoria-mariae* exhibited by the Austrian Orchid Society.

### PAPHIOPEDILUM HYBRIDS

Not much new was offered in the hybrids. Vinicolors or Maudiae-type hybrids were not seen, nor were crosses of new species from Vietnam.

Multi-floral hybrids of high quality appeared mainly in the display of Franz Glanz. He received a Gold Medal for his own bred *Paph. Wössner Black Wings* 'Wössen' (*rothschildianum* x *anitum*), which was also selected as the champion of the show. It is remarkable that Glanz produced one parent, *rothschildianum* 'Wössner Adler,' from seed and received a Gold Medal for it after only eight years, then



*Paphiopedilum armeniacum* 'Roma'  
Italian Orchid Society Exhibit - Silver Medal



*Paphiopedilum emersonii* 'Wössner Franz'  
Franz Glanz Exhibit - Silver Medal



*Paphiopedilum victoria-mariae*  
Austrian Orchid Society Exhibit



*Paph. Wössner Black Wings 'Wössnen'*  
(*rothschildianum* X *anitum*)  
Franz Glanz Exhibit  
Gold Medal and Champion of the Show



*Paph. Duke of Earl*  
(*kolopakingii* X *adductum*)  
Franz Glanz Exhibit  
Silver Medal



*Paph. Saint Swithin*  
(*rothschildianum* X *philippinense*)  
Franz Glanz Exhibit  
Silver Medal

made the cross with *anitum* and also got an extraordinary hybrid, Wössner Black Wings. Other exceptional hybrids from Glanz's display were *Paph. Saint Swithin* and *Paph. Earl of Duke*; each received a Silver Medal. Moreover, the breeder showed a group of *Paph. Franz Glanz* together with its parent plants – *Paph. armeniacum* and *Paph. emersonii*.

Less attractive is the result of the cross between *Paph. Prince Edward of York* and *Paph. anitum* in the Taiwanese display. Even if the results are very interesting because of the parents used and the deep color, the question remains whether such plants with poor form should be shown in displays.

Only a few complex hybrids were seen in the displays. They were mostly *Paph. Lippewunder* or its progeny.

**PHRAGMIPEDIUMS**

Only a few species and hybrids of the genus *Phragmipedium* were to be found in the displays - again, solely in the display of Franz Glanz. The breeder assembled a beautiful group of hybrids. Especially noticeable was *Phrag. Tiroler Ache* out of his breeding efforts, with several simultaneously opened, intensely red blossoms. The hybrid was the result of the



*Paphiopedilum* (unregistered)  
(*Prince Edward of York* X *anitum*)  
Taiwanese display



*Phragmipedium* Group  
Franz Glanz Exhibit



*Phragmipedium* Tiroler Ache  
(Jersey X *richteri*)  
Franz Glanz Exhibit

cross of *Phrag. Jersey* with *Phrag. richteri*. Until now, never seen on display was *Phrag. ×colombianum*, a natural hybrid between *Phrag. manzurii* and *Phrag. schlimii* from Colombia, which I described recently (SOA Newsletter, Volume 12, Number 2, Summer 2011).

## AWARD CEREMONY

The announcement of the champion of the show, *Paph. Wössner Black Wings* 'Wössen,' took place at the Gala Dinner during a cruise on the Danube. Franz Glanz received a prize and also an award for the best display in the show from Zsuzsa Tátra, President of the Hungarian Orchid Society.

## ABOUT THE AUTHOR

Olaf Gruss is internationally recognized for his work with *Paphiopedilums*, *Phragmipediums* and *Phalaenopsis*. He has written books about the genus *Phalaenopsis* and the albino forms of the genus *Paphiopedilum*, as well as a booklet about the genus *Phragmipedium*. He has been a member of the editorial board of the journal of the German Orchid Society, *Die Orchidee*. Gruss resides in Germany and lectures throughout Europe, Japan, Taiwan and the U.S.

All photos were taken by the author.



*Phragmipedium* ×*colombianum*  
(*manzurii* X *schlimii*)  
Natural hybrid from Colombia - two clones  
Franz Glanz Exhibit

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## AOS MEMBERS MEETING IN WICHITA

The AOS spring Members Meeting was held in Wichita, Kansas, April 25-29, 2012. The Kansas Orchid Society was extremely hospitable and had prepared a meeting enjoyed by all. The SOA sponsored Norito Hasegawa, owner of Paphanatics, unLimited of Anaheim, California as a speaker on "What's New in *Paphiopedilums*?"

Following Norito's talk we held a short auction and are very grateful for donations from him; Rod Knowles and Russ Tyler; Doug Martin; Max Thompson and Bryon Rinke; and Sam Tsui. Then Rod Knowles, our webmaster and photography expert, presented pictures from the 20th WOC that included the stunning entrance to the exhibit area, many exhibits and plants, views of the Marina Bay Sands Hotel, the nearby Gardens by the Bay and interior shots of the huge conservatory just opened there, and the National Orchid Garden in the Singapore Botanical Garden. These pictures may be seen in the Gallery on our website. [www.slipperorchid.org](http://www.slipperorchid.org)

Barbara Tisherman, SOA President



*Paphiopedilum* that received the Slipper Orchid Alliance Trophy at the recent AOS Show in Wichita, Kansas  
*Paph. Bel Royal 'Memoria Thomas Mastin' AM/AOS*  
(*kolopakingii* x *rothschildianum*)  
Owner: Max C. Thompson, Winfield, KS; Photo: Bryon K. Rinke

## UPCOMING EVENTS

### 19<sup>th</sup> Australian Orchid Council Conference and Show, Perth, Western Australia

September 11-16, 2012. See article page 14.

### International Slipper Symposium, Orlando, Florida, November 3, 2012

This year's International Slipper Orchid Symposium will be held at Howard Johnson Altamonte Springs. The format will be the same as in previous years - with speakers and plant sales during the day on Saturday, auction and BBQ Saturday evening at Krull-Smith, and nursery visit and open house at Krull-Smith on Sunday morning. Additional details and registration information will be posted as they become available at:

[www.slippersymposium.com](http://www.slippersymposium.com)

[This is the same venue as previous Orlando symposiums, just with a new name (previously the Clarion, now the newly improved Howard Johnson).]



### AOS Fall Members Meeting, November 14-18, 2012, Portland, Oregon

Doubletree Hotel Lloyd Center, 1000 NE Multnomah Street, Portland, Oregon 97232

SOA Speaker – Glen Decker on Phragmipediums  
Information: [www.portlandorchidsociety.org](http://www.portlandorchidsociety.org)

## A TRIP INTO MALAYSIA'S ORCHID HABITAT OF *PAPHIOPEDILUM niveum* AND *PAPHIOPEDILUM callosum* var. *sublaeve*

By Judith Rapacz-Hasler

A day after the closing of the 20<sup>th</sup> World Orchid Conference (WOC) in Singapore, my husband and I joined an eight-day post-Conference orchid tour hosted by Ooi Leng Sun Orchid Nursery in Penang, Malaysia (operated by Michael Ooi and his son Benjamin). We met with 12 other tour members at the Singapore airport and took the one-hour flight from Singapore to Georgetown on Penang Island.

Georgetown, named after Britain's King George III, is the capital of the state of Penang and is located on the northeast corner of Penang Island. We were met at the airport by Benjamin Ooi and our tour guide and were taken for a short bus tour of Penang Island before crossing one of Asia's longest bridges to the mainland of Kedah province. Kedah is the country's main rice producer in the north of Malaysia and borders on Thailand. After a delicious seafood lunch we returned to the airport for a flight to Langkawi, an island in the north of Malaysia. Our overnight accommodation was at the Hotel Meritus Pelangi Resort, right on the beach.

The next morning after an elaborate buffet breakfast we enjoyed a mangrove boat tour. We encountered snakes hanging on tree limbs and troops of monkeys on both sides of the river. Further down the river we visited a fish farm with huge stingrays among other exotic giant fish species and entered a cave where bats were clinging to the wall. Lunch was served at a "boat house," a floating structure near the shoreline of the island, serving rice with fairly spicy fish. Another attraction on the island was going up a cable car to 1800 feet (600 m), overlooking the islands and the busy seaport.

Langkawi is surrounded by 99 smaller islands, some of which have orchids, and others are bare rocks or totally covered by shrubs and trees. On the third day we were taken for "island hopping" in search of the pure white Lady's-Slipper, *Paphiopedilum niveum*. The small boats used enabled us to get a close-up look at the orchids on the rocks. *Paphiopedilum niveum* grows mainly in clusters on these island rocks in grooves filled with some leaf litter, or around tree stumps, just above the high-tide water line. The temperature in this region is generally in the mid-70s°F, and the area receives daily heavy rain showers. The plants must receive sprays of ocean salt water but with the daily showers appear not adversely affected. We observed only one small *Paphiopedilum niveum* in bloom - their blooming season is May. Several other species of orchids grow on these rocks, and Benjamin pointed to *Dendrobium secundum*,

*Trichoglottis fasciata* and *Bulbophyllums*. A picnic on the beach concluded the day's activities, and we returned to the hotel for a relaxing evening.

The next day we took the ferry trip from Kuah Jetty Port to Alor Setar on the mainland, where a bus was awaiting us for a two-hours ride to the Regency Jerai Hills Resort Hotel. The Resort Hotel is located at 3600 feet (1200 m), and we transferred from the bus to cars that were able to climb the narrow winding road. The main structure of the resort was built by the British in the 1920's. Now there are many small buildings with guest houses located along the slope and more guest houses are under construction. The temperature at 3600 feet was many degrees cooler, and the air was less humid than at the bottom. The view from there was spectacular, overlooking Penang Island and the rice fields below.

Early the next morning Benjamin took some of us by golf cart up Mount Jerai in search of *Paphiopedilum callosum*. Others walked the long and fairly steep road into the forest. Walking along the road or a short distance into the forest revealed many *Paphiopedilum callosum* seedlings and mature plants in bloom. They grow in abundance in this area either in moist leaf mulch or between rocks where water seeps down.



This trip really highlighted the different habitat requirements for *Paphs* - one on rocks in the warm humid climate of the ocean and the other in the cooler climate of rich moist forest mulch or between rocks where water seeps down. We also observed other orchids in this cooler habitat, including jewel orchids (*Ludisia discolor*) and *Bulbophyllums*.

One of Michael Ooi's nurseries is just below the Resort Hotel, and a walkway takes you to the nursery where he

propagates the cooler growing orchids. The second nursery, the home of warm growing orchids, is in Penang.  
[www.aaorchids.com](http://www.aaorchids.com)

All photos were taken by the author, except as noted.

Judith Rapacz-Hasler

SOA Editor

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Michael Ooi pointing to a cluster of *Paphiopedilum niveum* (in the circle above his head)



*Paphiopedilum niveum* grown in culture  
Photo: Benjamin Ooi



A healthy seedling of *Paphiopedilum callosum* growing in the leaf litter of the forest - Photo: Chris Barker



*Paphiopedilum callosum* in bloom - above growing along the roadside and below in the leaf litter of the forest



Michael Ooi pointing to a seedling of *Paphiopedilum callosum* - growing on a moss covered rock



## 19<sup>TH</sup> AUSTRALIAN ORCHID COUNCIL CONFERENCE AND SHOW

Perth, Western Australia, will be the site of the 19<sup>th</sup> Australian Orchid Council Conference and Show, September 11-16, 2012, in the Burswood Entertainment Complex. The theme, "Wild about Orchids," promises stunning displays and a very impressive international speaker list that includes 24 of the most highly regarded orchid growers in the world. Slipper lovers will have the opportunity to hear Terry Root as the keynote speaker on *Paphiopedilums* (Orchid Zone, California), Jason Fischer on *Phragmipediums* (Orchids Ltd., Minnesota), and Xavier Garreau de Loubresse on *Paphiopedilums* of Vietnam (France). The Conference lecture program may be accessed at: [http://www.waorchids.iinet.net.au/Lecture\\_Program.htm](http://www.waorchids.iinet.net.au/Lecture_Program.htm). The event is open to the public from Thursday to Sunday, September 13-16. Lectures also start on Thursday and run until Saturday, September 15.

There will be a number of daily public talks on orchid culture and potting demonstrations for those who want to learn from the experts on how to get the best results from your orchids. The event is taking shape extremely well with 350 registrants already booked. They expect more to be added to this as at least one tour group, this from the United States which is expected to bring about 50 people, is not included yet in this number. The deadline for the close of standard registrations is July 31. Even though the tours and the dinner are sold out the registration is still exceptional value, with the range of speakers, complimentary satchel, early photography access, ability to pre-order plants and flasks thus ensuring that you do not miss out, and the Opening Ceremony on the night before the public opening, where you will be rubbing shoulders with many world class orchid personalities.

Vendors are coming from Taiwan, Singapore, USA, Europe, Thailand, Indonesia, New Zealand,

China and from across Australia. They are being encouraged to submit their orchid catalogue for pre-ordering, and the catalogues will be on the Conference web site at: [http://www.waorchids.iinet.net.au/Pre-Ordering\\_Orchids.htm](http://www.waorchids.iinet.net.au/Pre-Ordering_Orchids.htm).

You are urged to arrange your accommodations as soon as possible, because hotel space in Perth is becoming extremely tight due to extensive activity in the mining industry. A list of local hotels/motels can be found on the 19th AOC Conference web site at: <http://www.waorchids.iinet.net.au/Accommodation.htm>.

It seems that there will be a change to the name of the venue for the 19th AOC Conference and Show toward the end of this year. The organizers will keep registrants informed to prevent confusion.

Springtime in Perth ensures that there will be many orchid genera in flower along with most of the local native orchids throughout Perth and the southwest.

For more information go to:

[http://www.waorchids.iinet.net.au/19th\\_AOC\\_Conference.htm](http://www.waorchids.iinet.net.au/19th_AOC_Conference.htm)

or email: [aocconference@dodo.com.au](mailto:aocconference@dodo.com.au)

## PAPHIOPEDILUM GUILD MEETING, JAN. 14-15, 2012

By Karen Muir

The 56th *Paphiopedilum* Guild Meeting was held this year January 14<sup>th</sup> and 15<sup>th</sup> in Santa Barbara, California at the Goleta Holiday Inn. The meeting was a great success, and everyone was pleased with the new location.

Speakers included Dr. Harold Koopowitz on the subject of "A Short History of the Slipper Orchids in Cultivation"; Dr. Holger Perner of China on the subject "*Paphiopedilums* - Their Cultivation and Propagation"; Karen Muir, "AOS and CSA Awards of 2011"; Glen Decker on the subject

“*Phragmipedium kovachii* and its Hybrids”; and Janet Plested on the subject “A Look at Four Habitats in South Thailand and North Malaysia.”

Open greenhouses are always a very popular part of the weekend. This year Cal-Orchids hosted a wine and cheese evening before the banquet. The Santa Barbara Orchid Estate, Orchids Royale and Hatfield Orchids also opened their greenhouses to the attendees.

Trophy winners with the most votes for the best species and hybrid went to: David Sorwokowsky for his *Paph. sukhakulii forma album* and to Bryce Augustine for his *Paph. Fanaticum*.

Everyone loved the venue, and the 2013 *Paph* Guild will be held again in Santa Barbara the weekend of January 19-20.

**ABOUT THE AUTHOR**

Karen Muir is a judge in the American Orchid Society and Cymbidium Society of America. She is a past Chairman of the AOS Pacific South Judging Region and is a Director of the Slipper Orchid Alliance.

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*Paphiopedilum* Krull's Lace 'Sabrina'  
(*Fanaticum* x *rothschildianum*)  
Owner and Photo: Les Vickers, Brisbane, Australia

A lovely intersectional hybrid made by Krull-Smith showing good aspects from its three species parent and grandparents - *rothschildianum*, *malipoense* and *micranthum*. This type of breeding does not usually have such a good outcome.



*Paph. Fanaticum* 'Concerto'  
Owner and Photo: Bryce Augustine



*Cypridium reginae*

Doug Martin of Shawnee, KS was the winner of the Mid-America Orchid Congress (MAOC) raffle prize in Indianapolis, April 14-15, 2012. Doug grows several *Cypridium* species in containers. See his article in the SOA Vol.10, No. 2; Summer 2009.

CONGRATULATIONS DOUG - Very appropriate!

This deeply carved *Cypridium reginae* design in thick glass has an almost three dimensional look to it. Husband and wife team Robert and Mary Krauski have their small workshop in Hartland, WI.

[www.krauskiartglass.com/pages/gifts/orchids.html](http://www.krauskiartglass.com/pages/gifts/orchids.html)

## Supporting Members

In each issue of our newsletter we recognize and thank our Supporting Members (individuals and businesses) whose additional dues make it possible for us to carry out our mission of preservation of and education about all lady-slipper orchids. If you are interested in becoming a Supporting Member, please contact Jean Metcalf at [orchidiva@gmail.com](mailto:orchidiva@gmail.com). We encourage our members to support these businesses. From our web site you may contact them directly.

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