



# The Mid-American

Newsletter of the Mid-America Orchid Congress

Summer 2021

[www.midamericanorchids.org](http://www.midamericanorchids.org)

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## Ohio Valley Orchid Fest 2021

Join us for a weekend of Orchids, Food and Fun for the Entire Family!  
Visit the website at [www.ohiovalleyorchidfest.com](http://www.ohiovalleyorchidfest.com)

An Orchid Show Complete with Orchid Sales (Orchids, Supplies and Related Items!), AOS and Ribbon Judging, Demonstrations, Speakers, Auctions, Food Trucks and Fun Family Activities

To be held at Emmanuel Lutheran Church, 4865 Wilmington Pike, Kettering, OH, as an outside event in a 12-acre parking lot with inside areas available in case of rain. In conjunction with the MAOC fall show, there will be AOS judging, however there will not be any displays. Orchids to be judged will be lined up on tables by class for the judges to view.



Sponsored by Greater Cincinnati Orchid Society, Miami Valley Orchid Society, MAOC and Emmanuel Lutheran Church

### Vendors:

- Botanica Ltd-Missoula, Montana
- Little Frog Farm-Lansing Michigan
- Mei's Creations-Grand Rapids, Michigan
- Natts Orchids-Naperville, Illinois
- New Vision Orchids-Yorktown, Indiana
- Oakwood Orchids-Dayton, Ohio

- Orchid Outlet-Cincinnati, Ohio
- Orchid Inn Ltd-Bloomington, Illinois
- Roberts Flower Supply-Columbia Station, Ohio
- Ten Shin Orchids-Taiwan
- Windswept In Time Orchids-Broadview Heights, Ohio
- Windy Hill Gardens-LaBadie, Missouri

Links to the websites for each vendor are found at [www.ohiovalleyorchidfest.com](http://www.ohiovalleyorchidfest.com)  
All Vendors are happy to take pre-orders.

The host hotel is 1 Mile from the event location and is near many dining and shopping places:

Holiday Inn Express - Dayton-Centerville

5655 Wilmington Pike, Dayton, Ohio 937-424-5757

Ticketed Events: While the Orchid Fest is open to the public with a suggested \$2 entry donation, there are a few parts of the event which require tickets.

Friday's Preview Party - \$5 per person; first shot at the sales area and a free drink ticket Saturday Keynote

Speaker: Bob Fuchs current president of the AOS at \$10 per person

Sunday Keynote Speaker: Brenda Oviatt - Botanica Ltd at \$10 each per person

Full Registration: \$35 per person includes:

Preview Party, both Keynote Lectures, Admission to the event both days, access to the registrant hospitality room, including tickets for beverages and a goody bag with an orchid to take home

See the webpage for updated lists of vendors, food trucks, schedule, attractions in Dayton and Cincinnati and more!

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

## **From President Barry Jones**

Well, that light at the end of covid tunnel wasn't a freight train after all, it was the Vaxinator! Now we can/are getting out into the world. The world of ORCHIDS! Yes, some shows this fall and Aug. 28/29 the first annual Ohio Valley Orchid Fest. Being held jointly with the Dayton and Cincinnati orchid societies. This brings together orchid sales/speakers/food trucks/orchid judging and FUN. The MAOC will be there as well. Please plan to attend. I know you want to...guilty pleasures are so much fun! More details at the website and in this issue. Must close. The birds are complaining that one of the feeders is low. Amazing that it's not Little Girl cat saying her food has been mouthed by others. When in doubt be good to others and yourself. Remember to get vaxed.

All for now—Da Prez

## **Letter From the Editors – Ann Tsui and Jeanne Rhinehart**

This issue of The Mid-American advances MAOC's goal of increasing communication among local orchid societies. As such we want to draw your attention to what's happening.

We are ready for the first annual Ohio Valley Orchid Fest! It is expected to be a joyous long awaited get together on August 27-29. A poster you can send to your society members can be found at the end of this issue.

Remember to check our new Facebook page! At an Affiliated Societies meeting it was suggested that we create a Facebook page to facilitate communication. Voila! Affiliated Societies established a site <https://www.facebook.com/groups/460364925167798> Please share the link with your society members and remember to record your society's activities and, with presenter permission, recorded Zoom programs here.

Members Corner is for articles from member societies. Please forward articles from your society for our use.

If your society has not joined yet this year, a membership form can be found at the end of this issue.

A healthy organization benefits from periodic re-evaluation to continue to provide the best direction for the Society. At present the Executive Committee of MAOC is working on this and you will be hearing about this in the future. One point of discussion is that Mid-America needs an Instagram account. This is an area which the Executive Committee needs help. If there are any members fluent with Instagram who would be interested in organizing and/or helping us with this, please email Jeanne at [jeanws@me.com](mailto:jeanws@me.com).

In summary, MAOC continues to thrive, living up to its original purpose of facilitating communications among societies. As such we would like to have you share your ideas with us via Facebook or email.

## **Affiliated Societies Meeting**

On Sunday June 27th MAOC affiliated societies met by zoom. We shared exciting news about the Ohio Valley Orchid Fest on August 27-29 in Dayton, OH. Be sure to attend with fun for all - vendors, speakers, food carts, auctions, and orchid friends.

MAOC Affiliated Societies was happy to have Genesee Region Orchid Society members from Rochester NY join in our Zoom meeting. In addition to sharing among those in attendance, the requested dendrobium cheat sheet was explained. This idea came from an earlier Affiliated Societies meeting and is another example of the success of our new ability for our member societies to share ideas via Zoom. We also shared how the executive committee is doing strategic planning, so MAOC remains relevant to our member societies.

We plan to zoom again in mid-October to share the Excel orchid show registration program with new class schedule imbedded which is available free to our affiliated societies. This program will help with societies plant registration and prints labels and the sheets used for ribbon judging. See you in October!

Donna Lipowicz  
MAOC Affiliated Societies Chair

## **What's New on the MAOC Website – Cheryl Erins**

Is Your society looking for educational materials, latest news in the orchid world or are you having a show and need the Show Schedule? Visit the [midamericanorchids.org](http://midamericanorchids.org) website and check it out. We have the newsletters from the Orchid Conservation Alliance too, as well as our MID-AMERICAN. Looking for back issues? Have that too. We have education programs that you can use for your meetings as the subjects never get old. We have videos too! The front page has news about upcoming events, like the August 27-19 Ohio Valley Orchid Fest, the first big event after being locked up by the pandemic. Want to learn about the Wheeler Collection 50<sup>th</sup> anniversary event? We have it for you online, under the meeting tab. Come see what societies need and want on your [midamericanorchids.org](http://midamericanorchids.org) website!! Ideas for something else? Love that. Send ideas to [cerins10812@comcast.net](mailto:cerins10812@comcast.net).

## **Helpful Hints and Resources for Entering Orchids in Shows** **By Doug Martin, Ph.D.**

Entering plants in an orchid show can be a daunting chore for people who haven't done it before. One particular problem can be determining in which classes the plants should be entered. The Mid-America Orchid Congress (MAOC) maintains a set of documents to help orchid society members with this task. These documents are

designed to work with the MAOC Show Schedule. They are available for download on the MAOC website Education page.

One is “MAOC Classification”. This is an alphabetical list of all orchid genera, with abbreviations, that gives the class(es) the plants should be entered in. It’s available as an Excel spreadsheet which allows the user to search for a genus by either its name or abbreviation. It’s also available as a pdf for those who don’t have Excel software.

The other document is “MAOC Intergeneric Makeup”. This is a list of all intergeneric orchid genera. An intergeneric genus is a combination of two or more natural genera, for example, a plant in the genus *Brassocattlya* combines one or more species of both *Brassavola* and *Cattleya*. This list gives the natural genera that make up each intergeneric genus. The document is available in two versions: MAOC Intergeneric Makeup-Name is alphabetized by name, and MAOC Intergeneric Makeup-Abbrev is the same list but alphabetized by abbreviation. Both versions are available as pdfs and as Excel spreadsheets, to allow searching.

### How to use the MAOC Classification document

If you know the name or the abbreviation of the genus for the plant, which is the first word of the orchid’s name, you can simply find it in the list. There you will find which class the plant should be entered in. Although there is only one appropriate class for each plant, sometimes more than one class is listed. There a couple of reasons that more than one class may be listed. First, for some genera, species and hybrids are given separate classes in the Mid-America Show Schedule. This makes it necessary to distinguish which plants are species, those which are found in the wild, and which are man-made hybrids. The genus name is always capitalized, but the species names, the second word, begin with a lowercase letter and are latinized. The names of hybrids are capitalized, not latinized, and may have more than one word. Thus, *Epidendrum conopseum* is a species and should be entered in:

Class 10, *Encyclia*, *Epidendrum* and *Prosthechea* species.

However, *Epidendrum* Little Miss Sunshine is a hybrid and belongs in:

Class 11, *Encyclia*, *Epidendrum* and *Prosthechea* hybrids and intergenerics, but excluding *Cattleya* and *Guarianthe*.

The second reason that there may be more than one class listed for a genus is that some of the more commonly grown genera, like *Paphiopedilum*, *Phalaenopsis*, *Vanda*, etc., are subdivided by color, size or other characteristics. For these, you will need to compare your plant to the descriptions of the classes, and perhaps consult the show rules which can also be found on the MAOC Education web page.

### How to use the MAOC Intergeneric Makeup documents

These lists are especially useful when the plant tag only gives the names, or abbreviations, of the plant’s parents and they are in different intergeneric genera. By looking up each of the parents, you can determine which natural genera are in the plant’s background. You can then look up the appropriate classes for each of these genera. Because the show rules specify that a plant should be entered in the first appropriate class, the plant should be entered in lowest numbered of these classes.

If you only know the abbreviation of the genus and cannot find it in the Classification document, you can look it up in the Intergeneric Makeup-Abbrev list.

Hopefully, this information will help simplify the show entry process.

## MAOC Conservation

### **NOPES Grant Report: Reestablishment of *Cypripedium parviflorum* var. *pubescens* at Mercer – Jeanne Rhinehart**



The nine plants we planted last year all came up and one bloomed! We will continue to track their progress. The following photo shows a non-blooming plant. It was too early to look for the *Platanthera ciliaris*.



### **Report of 50th Anniversary Celebration for the Wheeler Orchid Collection and Species Bank at Ball State University March 20, 2021**

On March 20, 2021, the Three Rivers Orchid Society and the Central Indiana Orchid Society collaborated to produce an educational Zoom event in celebration of the 50<sup>th</sup> year since the Wheeler Orchid Collection was established at Ball State University in Muncie, Indiana.

Presentations included a short history of the collection and a walking virtual tour of the facility. A remote presentation of equipment available for growing orchids under lights and growing techniques came second. The keynote presenter was Courtney Hackney who presented “Orchid Triage, How to Rescue Your Dying Orchid”. Russ Vernon presented a talk for the need for orchid conservation and methods to make that happen.

Over 150 orchidists registered for the event either through their society or as individuals. Proceeds for the celebration resulted in over \$800 being donated to support the collection at Ball State. Registrants were presented with a link to the recorded event for future reference.

Note-Over time, the name of the Wheeler Orchid Collection has changed to: The Wheeler-Thanhauser Orchid Collection and Species Bank at the Joe and Alice Rinard Orchid Greenhouse.

Respectfully submitted,  
Russ Vernon

# Report of MOAC Members Meeting on Zoom March 21, 2021

President Barry Jones called the meeting to order via Zoom at 10:07 a.m. with the following societies present: Ann Arbor Orchid Society, Atlanta Orchid Society, Batavia Orchid Society, Blue Grass Orchid Society, Central Indiana Orchid Society, Central Ohio Orchid Society, Central Ontario Orchid Society, Greater Cincinnati Orchid Society, Greater Lansing Orchid Society, Greater Omaha Orchid Society, Greater Toledo Orchid Society, Illinois Orchid Society, Memphis Orchid Society, Miami Valley Orchid Society, Michigan Orchid Society, Native Orchid Preservation and Education Society (NOPES), Niagara Frontier Orchid Society, Northland Orchid Society, Orchid Growers Guild of Madison WI, Orchid Society of Greater Kansas City, Orchid Society of Minnesota, Orchid Society of the Ozarks, Orchid Society of the Royal Botanic Gardens, Peoria Orchid Society, Saginaw Valley Orchid society, West Shore Orchid Society of Northern Ohio, Windsor Orchid Society, Wisconsin Orchid Society.

The following societies were not represented:

Alabama Orchid Society, Central Iowa Orchid Society, Central Missouri Orchid Society, Eastern Iowa Orchid Society, Essex County Orchid Society, Grand Valley Orchid Society, Greater Akron Orchid Society, Greater Cleveland Orchid Society, Greater Pensacola Orchid Society, Gulf Coast Orchid Society, Huntsville Orchid Society, Illowa Orchid Society, Kentucky Orchid Society, London Orchid Society, Mansfield Orchid Society, Michiana Orchid Society, Mobile Area Orchid Society, Northeast Alabama Orchid Society, Northeastern Wisconsin Orchid Society, Northwestern Michigan Orchid Society, Orchid Society of Greater St Louis, Orchid Society of Middle Tennessee, Prairie State Orchid Society, Smoky Mountain Orchid Society, South Metro Orchid Society, South Mississippi Orchid Society, Springfield Orchid Society, Three Rivers Orchid Society.

Barry congratulated Russ Vernon on his successful “Zoom Education Day” the day before to celebrate the 50<sup>th</sup> anniversary of the Wheeler Orchid Collection and Species Bank hosted by the Three Rivers and Central Indiana Orchid Societies. Approximately 150-190 people attended.

**Approval of Minutes:** The Congress approved the minutes from the Business Meeting in Dayton, OH, February 16, 2020, as distributed.

**Election of Officers for 2021:** Russ Vernon, Chair of the Nominating Committee, presented the following slate:

President: Barry Jones

1<sup>st</sup> Vice President: Cheryl Erins

2<sup>nd</sup> Vice President: Donna Lipowicz

Secretary: Doris Asher

Treasurer: Dana White

There were no additional nominations; this slate was accepted by unanimous vote. The Congress thanked outgoing Alexa Noel (2<sup>nd</sup> Vice President) and Michele Little (Treasurer), both of whom had served for the maximum permitted by the Constitution and Bylaws of five years.

**Budget:** Jan Yates gave a kind of “head’s up” concerning the budget in this most unusual “Covid year”. She will present an official budget for 2022 when the Congress meets in August.

**Treasurer’s Report:** Newly elected Treasurer Dana White updated the group on plans to transfer the bank account from Michele to her. The Congress’s net worth in the fall of 2020 was \$72,564, of which 64.6% is unrestricted.

**Conservation Committee:** Committee Chair Bill Morrison presented the following report:

“The Conservation Committee conducted its business via email. We included a new member, Keith Nelson.

We had six applications this year. Marjorie McNeely Conservatory wanting to add to their Central and South American collection. Wheeler-Thanhauser Orchid Collection looking to add paphiopedilum species, unlike their usual phalaenopsis request. NOPES asked for money to continue their restoration work.

Minnesota Landscape Arboretum requested funding to buy petri dishes for plating orchid symbiotic fungus and sand for the bottom of their bog planters, for the drainage system. MAOC helped pay for sphagnum moss for the bog planters last year.

The Committee recommends funding each of those at the \$400 level.”

So moved and approved.

“The Committee also received two grant requests from the University of Wisconsin - Madison, Ken Cameron's lab.

The first one is Kelsey Huisman, for travel to and around Ecuador to finish a study on Teagueia. The Committee chose not to fund this effort, as we do not fund travel expenses.

The second is Brandon Corder for a study on myco-heterotrophy in native American orchids. Apparently, this was the exact same proposal that he made to and was funded by the Native Orchid Conference. The Committee asks that this one be provisionally funded, depending on follow up questions.”

Brandon's request was moved and provisionally approved, pending Doug Martin contacting him and Ken Cameron (his advisor) and verifying the request.

**Ohio Valley Orchid Fest:** Annual Meetings Committee Chair Eric Sauer, who is also the chair of this Orchid Fest: announced an event on August 27-29, 2021, to which Mid-America is invited to hold its meetings. Planning is still preliminary, but the site is a 12-acre church facility. There will be orchid judging but no exhibit judging as the orchids will be grouped by genus. There will be orchid vendors. One speaker will be AOS President Robert Fuchs. Some of the activities will be in person; some will be via Zoom The Congress accepted the invitation to meet at that event.

**Constitution and Bylaws Committee:** Chair Charles Wilson walked the group through the revised Constitution and Bylaws which had been published for all to see in the Spring 2020 issue of The Mid-American.

Motion to approve passed unanimously.

**Audit Committee:** Chair Alexa Noel apologized for the lack of an audit report. However, due to Covid, it was impossible for the Audit Committee to obtain the Treasurer's records. Alexa did receive notice of necessary filings both to the State and also to the IRS, thus assuring that MAOC's tax exempt status is intact. As soon as she is able to obtain these financial documents, she will complete the audit.

**Communications Committee:** Committee Chair Jeanne Rhinehart gave the following report:

“Our Committee has been working with the Affiliated Societies Committee to reach out to societies with Zoom meetings. We plan to continue and increase these meetings with the next one in June.

We have set up a private FaceBook account for Mid-America for member societies to share events with the rest of the MAOC. Anything posted here will be put on the calendar on the MAOC website. Use email address, not Zoom logins.

The Committee is also enlarging The Mid-American with articles from member societies, information from Affiliated Societies meetings, and articles showing what MAOC does. It hopefully will come out quarterly. We hope societies will send articles to us.

We are planning to have a gmail account set up and will ask societies to send their newsletters to this email. We will not post anything in The Mid-American without permission from a society.”

**Affiliated Societies Committee:** Committee Chair Donna Lipowicz gave this report:

“Jeanne Rhinehart and I were delighted with the turnout at our meeting on March 1st. It was exciting and inspiring to see everyone and hear what you all have been doing. We are also very excited for our Canadian friends to be joining us. I'm impressed with all the new ways our societies are embracing the Zoom meetings and social media to promote our passion, virtual auctions, sharing speakers, newsletter pictures. This is what MAOC is about -- helping each other to be better at what we do. Now to briefly summarize items discussed on March 1<sup>st</sup>:

- March 20th Speakers & Tour of Orchid Species collection register by 3/17/21, details on MAOC website.
- March 21st MAOC Business Zoom Meeting 10AM invite is below and will also be sent to all societies.
  - Create a space to list access to shared Zoom speakers hosted by MAOC societies.
  - Private Facebook page for MAOC has been created, <https://www.facebook.com/groups/460364925167798> Request to join at that address. Even non-Facebook users can access information here. If you have a Zoom meeting you want to share (or other items) put it here.
- A calendar has been created on the MAOC web site. Any dates posted to Facebook will be copied here. You can also email Jeanne, [jeanws@me.com](mailto:jeanws@me.com) if you have anything you want her to post.
  - Listing of web addresses for MAOC Societies to contact others. The Excel file was sent to the attendees at our two recent meetings. A second Excel file was provided with the web addresses of all listed MAOC societies.
  - Excel Orchid Show Registration file with new class schedule available for societies.
- MAOC has education topics available on the MAOC website for society usage, Conservation newsletter.
- Some AOS Judging Centers are offering more access to their education sessions, Great Lakes JC & Atlanta JC.
- Orchid Mall has great resources, [orchidmall.com](http://orchidmall.com)
- Dendrobium cheat sheet to aid in registration/judging correct class for Denrobium sections. Under review prior to release.
- Speaker on Habenarias is Sara Hurdel [slhurdel@gmail.com](mailto:slhurdel@gmail.com)
  - MAOC meeting with group that advises nonprofit organizations suggested by Eric Sauer, apparently not too costly.
- MAOC dues for 2021 will be greatly appreciated from our member societies. Mail to Dana White, 5855 Deerfield Rd., Milford, OH 45150. She will be sending out new forms after our March meeting.
  - If anyone has anything to add or thought of something else feel free to email us at [jeanws@me.com](mailto:jeanws@me.com) or [ladysliper@roadrunner.com](mailto:ladysliper@roadrunner.com).
- The next Affiliated Societies Zoom meeting tentatively scheduled for June 2021.”

**Adjournment:** There being no additional business to come before the Congress, President Barry Jones adjourned the meeting at 11:29 a.m.

Respectfully submitted,  
Secretary Doris Asher



# FROM THE ARCHIVES by Doris Asher, May 24, 2021

As I wrote in my piece in February of 2021, MAOC President Hermann Pigors established the Affiliated Societies Committee in the fall of 1990 and charged the Committee with running the Affiliated Societies Breakfast, which had formerly been the responsibility of either the 1<sup>st</sup> or the 2<sup>nd</sup> Vice President of the Congress. What follows is the listing of Sunday morning Breakfast discussions, with their dates, locations, and topics.

The current Affiliated Societies Committee, chaired by Donna Lipowicz welcomes your ideas about topics of interest for future sessions.

## TOPICS OF MID-AMERICA ORCHID CONGRESS AFFILIATED SOCIETIES COMMITTEE SUNDAY BREAKFAST DISCUSSIONS

Fall 1983	Cleveland, OH [?]	West Shore Orchid Society
Fall 1991	Louisville, KY	Society Newsletters
Spring 1992	Nashville, TN	History and Accomplishments of MAOC
Fall 1992	Chicago, IL	Fund Raising and Cost Control
Spring 1993	Peoria, IL	Summary of Membership Survey
Fall 1993	St Paul, MN	Recruitment and Retention of Members
Spring 1994	Worthington, OH	Exhibiting Orchids: From Society Show Tables to MAOC Shows
Fall 1994	Kansas City, MO	Educational Opportunities in Societies
Spring 1995	Livonia, MI	Rapping With the Reps
Fall 1995	Cleveland, OH	[joint with AOS]
Spring 1996	Atlanta, GA	[joint with AOS]
Fall 1996	Knoxville, TN	Orchids on the Internet – Ned Nash
Spring 1997	Chicago, IL	Education & Research Committee – Russ Vernon
Fall 1997	St Louis, MO	Creative Recruitment of Orchid Growers
Spring 1998	Toronto, ON	[joint with AOS]
Fall 1998	Lexington, KY	Publication Committee
Spring 1999	Lansing, MI	Exhibiting
Fall 1999	Milwaukee, WI	Show Schedule Committee
Spring 2000	Livonia, MI	Communication – Newsletters & Websites
Fall 2000	Muncie IN	MAOC Website
Spring 2001	Worthington, OH	Open Forum
Fall 2001	Birmingham, AL	Ways & Means Committee Budget Committee
Spring 2002	Chicago, IL	Innovative and Creative Programs – Don Garling
Fall 2002	Frankfort, KY	Attracting and Retaining New Members
Spring 2003	Toronto, ON	Fund Raising
Fall 2003	Louisville, KY	Future of MAOC
Spring 2004	Atlanta, GA	How Societies Can Help Each Other
Fall 2004	Nashville, TN	Getting Society Members More Involved
Spring 2005	Bloomington, MN	[joint with AOS]
Fall 2005	Mason, OH	Communication in Your Local Society
Spring 2006	Omaha, NE	Specialty Groups Within Your Local Society
Fall 2006	Lexington, KY	Trends in Local Orchid Shows
Spring 2007	Chicago, IL	Challenges Facing Local Societies
Fall 2007	Independence, MO	Keeping Society Membership Relevant in Today's Society
Spring 2008	Troy, MI	Crisis in Leadership in Local Orchid Societies
Fall 2008	Mason, OH	Compensating Speakers
Spring 2009	Columbus, OH	Selecting Programs
Fall 2009	Franklin, TN	Creative Approaches to Local Orchid Shows
Spring 2010	Omaha, NE	Conservation Efforts by Local Orchid Societies
Fall 2010	Louisville, KY	How Does Your Society Honor Present and Past Members?
Spring 2011	Memphis, TN	Finances and the Local Orchid Society
Fall 2011	Milwaukee, WI	Exhibits in Other Societies' Shows

Spring 2012	Indianapolis, IN	Communication: Websites, Newsletters and Social Media
Fall 2012	Independence, MO	Security and Insurance
Spring 2013	Ann Arbor, MI	Marketing and Advertising to Recruit New Members
Fall 2013	Dayton, OH	Energize Your Local Society With the Resources of Mid-America
Fall 2014	Columbus, OH	Increasing Membership Participation in Your Local Society
Spring 2015	Franklin, TN	What Is the Strength of Your Society?
Fall 2015	Naperville, IL	Mentoring Members to Assume New Roles Within Your Society
Spring 2016	Cincinnati, OH	Empower Your Society in the Electronic Age
Fall 2016	Buffalo, NY	Program Options
Spring 2017	Omaha, NE	What Is Your Problem?
Fall 2017	Cincinnati, OH	Managing the Finances of Your Society
Spring 2018	Strongsville, OH	Challenges in Hosting an Orchid Show
Fall 2018	Independence, MO	The Role of the Beginners Group in Your Society
Spring 2019	Lansing, MI	How Do You Handle Difficult or Inappropriate People in Your Society
Fall 2019	Milwaukee, WI	What Does the MAOC Do for Your Society?
Spring 2020	Dayton, OH	How to Encourage Other Orchid Societies to Exhibit at Your Show

## Members Corner Articles

### ***Cypripedium parviflorum* (Salisbury) – Native Orchid Preservation and Education Society - Jeanne Rhinehart**

When we first started NOPES and discussed the education portion of our mission statement, we agreed that in addition to educating others about native orchids we would also be educating ourselves. Having an orchid of the month in the newsletter does both and I especially enjoy educating myself while doing the research. My original plan was to start with the yellow lady's slipper, having seen the spectacular displays in the Bruce Peninsula in comparison with the sparse number found locally in Ohio. When I started this research, my first questions revolved around how the three I knew of were different. The small lady's slipper eluded me, so I started with an easier orchid. Now I've finally decided to bite the bullet and summarize all that I've learned about this orchid species and its four varieties.

On my first trip to the Bruce Peninsula, John Lamey showed me examples of *Cypripedium parviflorum* var. *pubescens* with different petal shading, and on my second trip we found *Cypripedium parviflorum* var. *makasin*. Seeing *Cypripedium parviflorum* var. *pubescens* growing like dandelions do at home was just unbelievable, and everyday Jan Yates had us stopping at the next large clump which must have been the biggest yet. I do think she finally found it!



*Cypripedium parviflorum* var. *pubescens*  
Bruce Peninsula, Ontario. Photo by Jan Yates



*Cypripedium parviflorum* var. *pubescens* in the Bruce Peninsula, Ontario  
 Photo by Jan Yates

In North America the genus has three or four varieties (depending on what you reference and its date of publication), *Cypripedium parviflorum* var. *pubescens*, *Cypripedium parviflorum* var. *parviflorum*, *Cypripedium parviflorum* var. *makasin* and *Cypripedium parviflorum* var. *exiliens*. There are descriptions of each of the varieties and some feel there are enough differences to call them separate species. Others think they are one species whose differences are caused by environmental conditions.

So as usual I start my search with my local bible *Orchids of Indiana* by Michael Homoya. I next check Go Orchids, [goorchids.northamericanorchidcenter.org](http://goorchids.northamericanorchidcenter.org), followed by Flora of North America and the USDA Database of Plants and then several of the books referenced below. For this species I also check the Royal Botanic Gardens Kew-database and *Orchids* articles. This is followed by an internet search by species and, in this case, variety and hybrid names. An extensive reference is listed below. This article explores what I found starting with the points of agreement followed by the parts that differ and shows what a varied and spectacular species *Cypripedium parviflorum* is.

Lady's slipper orchids (*Cypripedium*) are the best known of North America's wild orchids. There are more than 45 species of *Cypripedium* across the northern hemisphere. They belong to the *Cypripedioideae* subfamily of orchids (*Orchidaceae*). This subfamily includes *Paphiopedilum* in southeast Asia, *Phragmipedium* and *Selenipedium* in Central and South America and *Mexipedium* in Mexico. This group of orchids has a distinctive pouch giving it the name Lady's slipper, or slipper orchid.

The genus name *Cypripedium* comes from Greek Κύπρις (Kýpris), which is a reference to Aphrodite from Greek myths and from πέδιλον (pédilon), meaning sandal. The specific Latin name "parviflorum" means "small flowers." Pubescens means pubescent, ripening or hairy in Latin. The earlier name *calceolus* is the Latin meaning "little shoe," in reference to the slipper-like shape of the labellum. In 1740 Linnaeus named the yellow lady's slipper, which had been recognized as an orchid in the 1600's, *Cypripedium calceolus*.

Lady's slipper orchids origins exist in North American native myths. One of these is:

"An old Ojibwe legend tells of a village visited by plague. It was the dead of winter and many died, including the village healer. To save the community, a young girl made a dangerous journey through the snow to find medicine for the sick. She succeeded, but on the way lost her moccasins, leaving a trail of bloody footprints in the snow. When spring arrived, the bloody footprints put forth moccasin flowers, better known today by their Western name, the lady's slippers." 1

D. S. Correll, who is credited with lumping our North American yellow lady's slipper species into the group *Cypripedium calceolus* along with the European and Asian species, gave it the name *Cypripedium calceolus* Linnaeus var. *pubescens* (Wilde) Correll. This name held for half a century." 2

Along with his practice of lumping names, Correll recognized the complex as having four "ecological entities" 2: 1) A northern group which was the smallest was called by some *Cypripedium parviflorum*. It ranged across northern North America in calcareous swamps and was quite fragrant.; 2) A northeastern group given the name *Cypripedium calceolus* var. *planipetalum* Fernald was found in the barrens of Newfoundland. He considered them more closely related to European species.; 3) The most widely found, larger, less scented was called *pubescens*.; 4) A lesser-known group growing in semi shade in rich moist hot temperatures in the Gulf States was known as *kentuckiense*.

By the mid 1900's recognition for two varieties based on plant size became accepted: *Cypripedium calceolus* Linnaeus *pubescens* (Wild.) Correll, the Large Lady's Slipper and *Cypripedium calceolus* Linnaeus var. *parviflorum* (Salisb.) Fernald, the Small Lady's Slipper. These names were used in most books published then.

At present the species is accepted to consist of four varieties and they are different than the four Correll listed. The next section will be the taxonomic description of three varieties along with the accepted ranges as found in the Flora of North America database. 3 They do not list the fourth variety as it was accepted after the database was last updated. The fourth more recently described follows.

### ***Cypripedium parviflorum* (Salisbury) var. *pubescens* (Willd.) Knight**

"Bracts: abaxial surface of distalmost sheathing bract (and often the next) densely and conspicuously silvery-pubescent when young (later sometimes glabrescent). Leaves 3–5, on proximal portion of or more evenly



*Cypripedium parviflorum* var. *pubescens* showing hairs on petals and bracts. Photo by Jan Yates



*Cypripedium parviflorum* var. *pubescens*  
Bruce Peninsula, Ontario

spaced along stem, alternate, erect to spreading; blade orbiculate or broadly ovate to elliptic-lanceolate or oblanceolate, 7.9–20.9 × 1.5–12 cm. Flowers 1–2, large to rather small (very small in some boreal and northern cordilleran specimens), scent moderate to faint, rose or musty; sepals commonly spotted, striped, and reticulately marked with reddish brown or madder, rarely extensively blotched or wholly unmarked; lip oblance-ovoid to calceolate or subglobose, 20–54 mm; orifice 10–23(–27) mm. 2n = 20”



***Cypripedium parviflorum* var. *makasin* (Farwell) Sheviak**

“Bracts: abaxial surface of distalmost sheathing bract (and often the next) sparsely and inconspicuously pubescent or glabrous when young. Leaves (2–)3–5, on proximal portion of or more evenly spaced along stem, alternate, erect to spreading; blade orbiculate or broadly ovate to elliptic-lanceolate, 5.2–18.5 × 1.6–14.3 cm. Flowers 1–2(–3), small, scent intense, sweet; sepals and petals usually suffused with dark reddish brown or madder, or in west often spotted and blotched; lip oblance-ovoid to calceolate, 15–29 mm; orifice 10–17 mm. 2n = 20.”





*Cypripedium parviflorum* var. *makasin*, Manitoba.  
Photo by Ben Rostron



*Cypripedium parviflorum* var. *parviflorum*, Kentucky  
Photo by Angela Carter

***Cypripedium parviflorum* Salisb. var. *parviflorum***

“Bracts: abaxial surface of distalmost sheathing bract (and often the next) densely and conspicuously silvery-pubescent when young (later sometimes glabrescent). Leaves 4–5, rather evenly spaced along stem, alternate, spreading; blade orbiculate to lance-elliptic to ovate or obovate, 9–19 × 2.5–9 cm. Flowers 1–2, small, scent moderate to faint, rose or musty; sepals and petals usually minutely but densely spotted with reddish brown or madder and appearing uniformly dark, rarely only coarsely spotted and blotched; lip oblance-ovoid to calceolate (slipper-shaped), 22–34 mm; orifice 12–19 mm.”



*Cypripedium parviflorum* var. *exiliens* Sheviak



*Cypripedium parviflorum* var. *exiliens*,  
Alberta. Photo by Ben Rostron

“Perennial herb from slender rhizomes and coarse, fibrous roots; plants small, slender.



Lanceolate-elliptic, ribbed, ascending, arched and spreading from the lower stem with sheathing base. Bracts 2 (rarely more), sheathing, tubular; uppermost bract glabrous to sparsely pubescent if not leaf-like, pubescent in the lower-half if leaf-like; flowers 1 (rarely 2), intensely sweet-scented when young, becoming rose-scented at maturity; lip (16) 20 to 24(26) mm long, golden yellow; sepals and petals pale, dull, green-tan, finely marked with clusters of red-brown spots; petals (23) 27 to 45 (52) mm long. Capsules erect, ellipsoid, ribbed.” 4

Ben Rostron’s description for identifying it “I believe this to be an example of *C. parviflorum* variety *exiliens*, following Sheviak (2010). These are small plants, smaller than the typical "YLS" that we commonly see in our area. These have a distinct lack of colouration on the petals and sepals. And, most importantly, these are growing in mostly dry, rocky habitat, in rubble of limestone and dolostone. Normal "YLS" grow in wet to intermediate calcium rich soils. I was not

able to check the stems when they emerged for hairs but will try better next time!

[I went to this location June 2019 to check on them but was unable to get past the mother black bear and her 2 cubs right at this spot!!]” Excuses! Excuses!

A Flipping Book on *Cypripedium parviflorum* var. *exiliens* <https://fliphtml5.com/ylgt/gdbn/basic/> gives a great description and information on this variety.

### Key

This key is taken from two sources: Charles Sheviak’s key in *Orchids* June 1994 5 and 2b from Ronald Coleman’s article modifying Sheviak’s earlier key of only the first three varieties to include the fourth variety In *Orchids* July 2019. 6

1. Abaxial (outer) surface of uppermost sheathing bract densely and conspicuously silvery-pubescent when young (later sometimes glabrescent;); flowers large to small, lip 20-54 mm long; sepals and petals variably spotted,

striped blotched and reticulately marked with reddish brown or madder (dark purplish brown) (rarely unmarked); scent moderate to faint, rose or pungent-musty

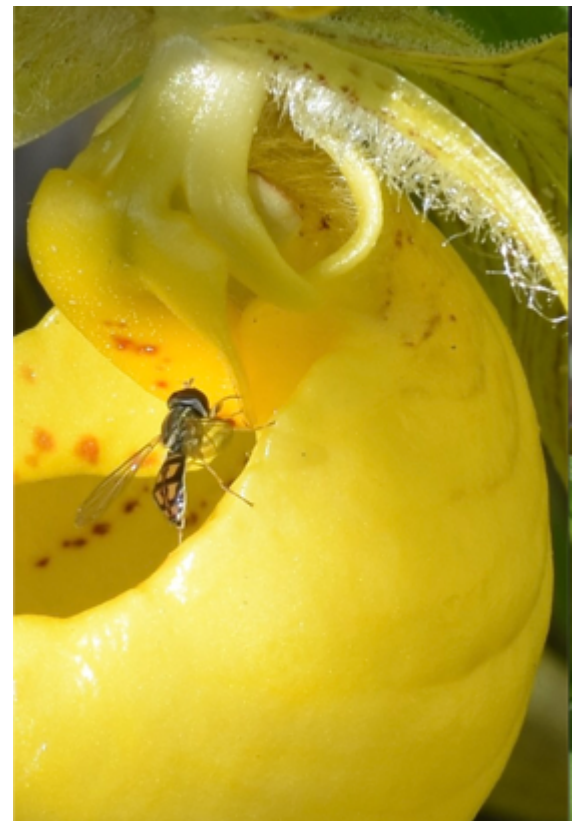
.....go to 2

1. Abaxial (outer) surface of uppermost sheathing bract sparsely and inconspicuously pubescent to glabrous when young; flowers small, lip 15-29 mm long; sepals and petals usually suffused with dark reddish brown or madder, or in the West often spotted and blotched; scent intense, sweet  
..... var. **makasin**
2. Flowers commonly large, lip to 54 mm long, but very small in some boreal and northern cordilleran plants, (as small as 20 mm); sepals and petals unmarked to commonly spotted, striped, and reticulately marked with reddish brown or madder, rarely extensively blotched; throughout the range of the species  
..... var **pubescens**
2. Flowers small, lip 22-34 mm long; sepals and petals usually densely and minutely spotted with dark reddish brown or madder and appearing uniformly dark (rarely coarsely spotted and blotched); southern New England to Kansas and southward..... var **parviflorum**
- 2b. Flowers small; pouch 16- 26 mm; sepals and petals dull green tan with small clusters of rust colored spots; scent intense, sweet.....var **exiliens**

*Cypripedium parviflorum* var. *pubescens* blooms from April until August depending on its location. It is generally found growing in deciduous and coniferous forests, prairies meadows and fens. *Cypripedium parviflorum* var. *makasin* blooms from May until August and is found in mesic to wet fens, prairies, meadows, coniferous and mixed forests. *Cypripedium parviflorum* var. *parviflorum* blooms from April until June in mesic to dry deciduous forests. *Cypripedium parviflorum* var. *exiliens* flowers in early June until mid-May. It is found in open forests of spruce and aspen. Fred Case **7** found through studies that the flowering times of the various strains were fixed. Strains from warm woodlands with early blooming times compared to those in blooming later in cold bogs when moved to the same location kept their original bloom times. Michael Homoya **8** discusses comparative growth habits in South Dakota with *Cypripedium parviflorum* var. *pubescens* growing more abundantly in limestone soil regions than in sandstone or granite regions.

Like one third of orchid species, *Cypripedium parviflorum* uses deception to trick pollinators into pollination. It is a food-deceptive orchid which tricks the pollinator into the trap (pouch) of the orchid flower. The pollinator must find the escape holes located near the anthers and to get there, pressure is exerted on the stigma. Studies have shown pollinators from *Hymenoptera* including *Andrenidae*, *Apidae*, *Halictidae*, *Megachidae*, *Agapostemon*, *Andrena*, *Apis*, *Ceratina*, *Eristalis*, *Osmia* and *Lasioglossum* pollinate *Cypripedium parviflorum* and that bee size matters for successful pollination. The more successful at pollination were small to mid-size female bees. Not all pollinators have been spotted on all varieties.

Mycorrhizal fungi are necessary for germination in many orchids and may be necessary in adult orchids. Some plants have specific fungal associations. *Cypripedium parviflorum* association is found with the *Tulasnellaceae* family of mycorrhizae fungi. This fungal relationship is the reason plants taken from the wild usually will not survive a year and/or produce viable seeds when planted in an area



*Cypripedium parviflorum* var. *pubescens* showing one of the syrphid flies of the family *Syrphidae*. Also note pubescent hairs. Photo by Jan Yates



where the fungus does not exist. If you want to grow these plants, buy from a responsible vendor.

While *Cypripedium parviflorum* is the best known and widest spread of North American native orchids, it or one of its varieties is threatened or endangered over much of its range. The various states do not all recognize which of the varieties they list with some naming them by the older synonyms *Cypripedium calceolus* var. *parviflorum* and *Cypripedium calceolus* var. *pubescens*. The *Flora of North America* list *Cypripedium parviflorum* var. *exiliens* as threatened in Alaska. It lists *Cypripedium parviflorum* var. *makasin* as threatened in Connecticut and Kentucky; endangered in Illinois, Massachusetts, New Hampshire, New York, Pennsylvania and Washington. It lists *Cypripedium parviflorum* var. *parviflorum* as endangered in Illinois, New Hampshire, New York, Ohio, Pennsylvania, Rhode Island, and Washington; threatened in Kentucky; unusual in Georgia; rare in Indiana. It lists *Cypripedium parviflorum* var. *pubescens* as endangered in Illinois, New Hampshire, New Mexico, Washington, and Rhode Island; threatened in Kentucky; and vulnerable or unusual in Arizona, Connecticut, Georgia, New York, and Pennsylvania. Again, because of naming issues, exactly which variety is really meant is not necessarily up to date. Because of the confusion over the names of the representative plants for each species, these lists are confusing and probably inaccurate. So, whereas the yellow slipper is spread over a large portion of North America it is still threatened in many areas. Most state department of resources show information about what is found in their state along with varying levels of updated naming accuracy.

D. S. Correll, also described historical medicinal uses for *Cypripedium calceolus*. In 1907 the roots were used as the drug “Cypripedium”. The root powder was used as a sedative and can still be found for sale by some herb companies. Cherokee Indians were said to use it to get rid of worms. The plant itself can irritate the skin of some people who come in contact with its glandular hairs.

Correll considered the rust, *Puccinia Cypripedii* to be a natural enemy of *Cypripedium calceolus* causing minor plant decline. Slugs also have a definite fondness for the plants.



*Cypripedium x andrewsii*, Castalia, Ohio  
Photo by Jan Yates

Other sources mention that its flowers when individually picked, partially filled with sand, and floated in water were used as play boats by Native American children.

The *Cypripedium parviflorum* complex has five natural hybrids. Three are hybrids of *Cypripedium parviflorum* varieties with *Cypripedium candidum*. The other two natural hybrids are crossed with *Cypripedium montanum* and *Cypripedium reginae*.

#### ***Cypripedium x andrewsii* A. M. Fulle**

“Perennial herb 10 - 60 cm **Stem**: one, erect, green, leafy, hairy. **Leaves**: two to five, alternate, ascending, stalkless, green, 5 - 20 cm long, 1 - 10 cm wide, somewhat elliptic, non-toothed, folded lengthwise, strongly ribbed, and hairy. **Inflorescence**: of one or two, erect, terminal, stalked flowers with each

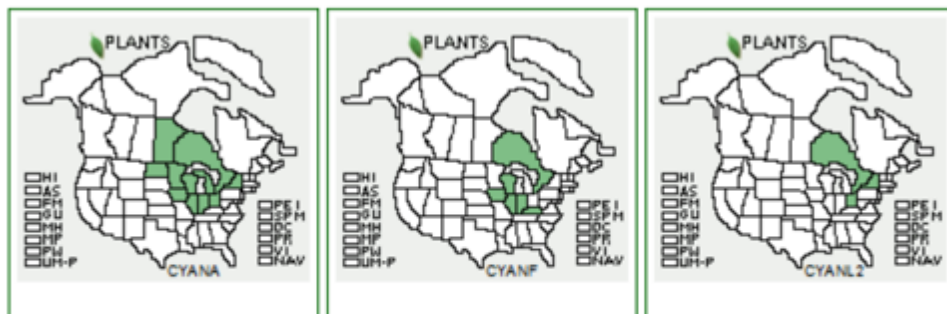
flower closely subtended by a stalkless, erect, green, hairy, leaf-like, 5 - 10 cm long, 1.5 - 4 cm wide, somewhat egg-shaped bract. **Flowers:** showy, variously colored, often ivory-white or pale cream fading to dull yellow, hairy, bilaterally symmetric with highly modified, very inflated, egg-shaped lip petal. Unlike other orchids, the reproductive parts of stamens and stigma are not fused into a column above the inferior ovary, but instead at the basal opening of the lip petal there are two separate anthers, one large, sterile, modified staminode, and a lobed stigma above the hairy inferior ovary. **Sepals:** three, but two lower fused together into synsepal positioned behind and below lip petal, with single upper, central, more or less egg-shaped sepal above inflated lip petal. Both the synsepal and upper (dorsal) sepal are hairy, and the same color as the lateral petals, namely either maroon to dark purple-brown (from one variety of parent species) or greenish yellow and streaked with brown (from the other variety of parent species). **Root system:** of slender, fleshy, fibrous true roots arising from rhizomes. **Lateral petals:** two, more or less spreading, either maroon to dark purple-brown or greenish yellow and streaked with brown, hairy, 2.3 - 6 cm long, under 1 cm wide, spirally twisted, lance-shaped to more linear. **Lip petal:** one, central, lowermost, predominantly dull off-white (either ivory-white, or pale cream then fading to dull yellowish), 1.5 - 6 cm long, 1 - 3 cm wide, greatly inflated, pouch-like, more or less egg-shaped, and hairy. On the inner surface of the pouch the veins are usually colored dark purple, which is faintly visible on the outside especially along the bottom, and there is typically purple spotting surrounding and inside the basal opening (orifice) of the petal. Basal orifice with outer edge (opposite staminode) either forming somewhat pointed acute angle, or more blunt obtuse angle. **Staminode:** one, prominent, yellow with purple spots and sometimes green streaks, more or less broadly triangular, and positioned below upper sepal and pointing down to basal opening (orifice) of lip. On the back side of the staminode the two anthers are positioned on each side of the central lobed stigma.” The Morton Arboretum 9



*Cypripedium candidum* forms three hybrids one with each of the *Cypripedium parviflorum* varieties. Different parents crossing with *Cypripedium candidum* produce variations in color in the hybrids. Crossed with *Cypripedium parviflorum* var. *makasin* the hybrid had maroon to dark purple brown sepals and lateral petals and its lip is dull white or ivory. When crossed with *Cypripedium parviflorum* var. *pubescens* the sepals and petals are greenish yellow streaked with brown and the lip cream fading to dull yellow. Below the ranges are given for the different hybrids and their variety names. When both parents are not found in the same area as the hybrid, it is difficult to



*Cypripedium x andrewsii*  
Castalia, Ohio



*Cypripedium x andrewsii* var. *xandrewsii* [*candidum* x *parviflorum* var. *makasin*]  
hybrid ladyslipper

*Cypripedium x andrewsii* var. *favillianum* [*candidum* x *parviflorum* var. *pubescens*]  
hybrid ladyslipper

*Cypripedium x andrewsii* var. *landonii* [*x andrewsii* var. *favillianum* x *parviflorum* var. *parviflorum*]  
hybrid ladyslipper

determine which of these varieties may be present. I was not able to find any photos defining these three varieties.

The following pictures are at sites in Michigan and Ohio. The Ohio site is a sunny meadow and so far, we have only found *Cypripedium candidum*. along with the hybrid. Most references for the site refer to the cross being with *Cypripedium makasin*, but we have not to be able to find the other parent.



*Cypripedium candidum*  
Castalia, Ohio

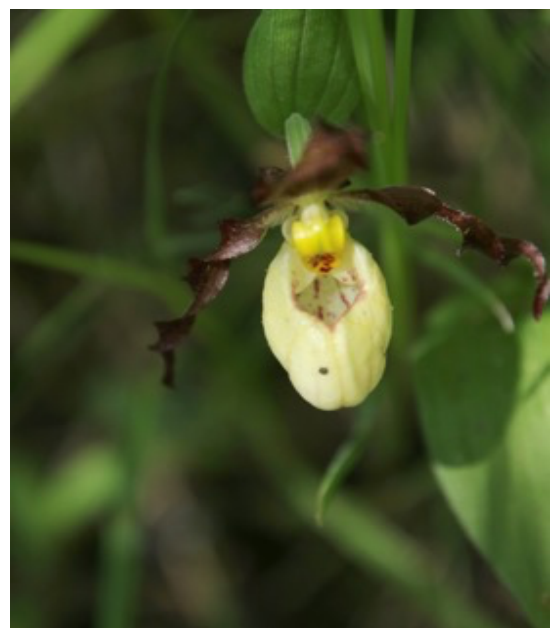


*Cypripedium x andrewsii*  
Castalia, Ohio

The second site is in Michigan and again this time we only found one parent, *Cypripedium parviflorum* var. *makasin*. This site is much more shady and almost swampy. The plants are mostly found on raised sunny hummocks in the surrounding swamp.



*Cypripedium parviflorum* var.  
*makasin*. Waterloo, Michigan

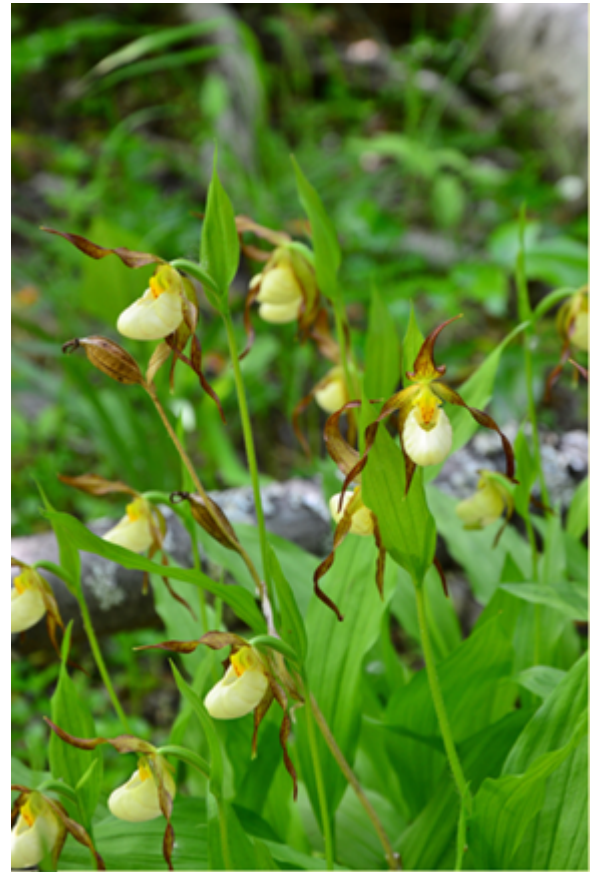


*Cypripedium andrewsii*  
Waterloo, Michigan

***Cypripedium x columbianum* Sheviak**

The only plant description I could find was from Dr. Charles J. Sheviak published in the *American Orchid Society Bulletin*, June 1992. “Plant intermediate between *Cyp. montanum* and *Cyp. parviflorum* in habit and floral color, or with the features of the species intermixed; in particular the lip commonly ivory or pale-yellow fading to white.” 10

In writing this article I have been lucky to get some fantastic photos from Chelsea Kieffer and Ben Rostron for the orchids I have not yet been able to see.



*Cypripedium x columbianum*, Washington. Photo by Chelsea Kieffer



*Cypripedium montanum*, California  
Photo by Chelsea Kieffer

Most of our group have not been able to see one of the parents of this hybrid *Cypripedium montanum* Dougl., ex Lindl., the Mountain Lady’s Slipper, as it is found in western North America from California to southern Alaska at the edges of deciduous forests.

*Cypripedium montanum* is 25 to 71 cm in height and *Cypripedium parviflorum* is from 12 to 80 cm in height so the hybrid should also be in this range and easily seen when hiking.

The following photos are examples of its parent species together for comparison.

The lower left is Chelsea’s photo from California of *Cypripedium montanum*, a spectacular example of a multiple bloom inflorescence. This species is known to have multiple blooms while the other parent seldom does. The picture on the lower right is of the other possible parent *Cypripedium parviflorum* var. *pubescens*. This photo belongs to Ben Rostron and is representative of the variety in Canada. This photo is from Alberta. Comparing the parents with the hybrid you can see how it fits Dr. Sheviak’s description.



*Cypripedium montanum*, California  
Photo by Chelsea Kieffer



*Cypripedium parviflorum* var. *pubescens*, Alberta. Photo by Ben Rostron

***Cypripedium x herae* Ewacha, Sheviak**

“Flower dull yellow tinged with brown, suffused with very pale pink. Lip and inflated sack forming a semi-globose slipper, dull yellow, somewhat more golden above, suffused with whitish pink below and extensively marked with brownish red spots and lines. Petals linear-elliptic, the margins with a few broad undulations, dull yellowish apically, otherwise suffused with whitish pink. Dorsal sepal ovate, dull yellow, suffused with whitish pink at the base, somewhat marked with brownish red spots. Synsepal mostly whitish pink.” 11



*Cypripedium x herae* and *Cypripedium reginae*, Manitoba. Photo by Agnes Ryckman



*Cyripedium reginae*, Bruce Peninsula  
Photo by Jan Yates

The photograph at right **12** is of *Cyripedium x herae* and *Cyripedium reginae* found in a field in Manitoba. *Cyripedium x herae* is a hybrid of *Cyripedium parviflorum* var. *pubescens* and *Cyripedium reginae*. This hybrid is a rare find as the two parents' bloom times rarely overlap making pollination difficult. The name *Herae* comes from the name of the Greek queen of the gods, Hera who walked in golden slippers. It was chosen because the cross was with the queen of the orchids *Cyripedium reginae* and has golden coloration.

Much of the information available is historical discussions about the *Cyripedium parviflorum* complex as found in books on native orchids and online in the Flora of North America and state natural resource departments. Unfortunately, many of these references do not have the funds to keep the information up to date. Finding more recent scientific articles is more difficult. I am thus referencing many *Orchids* articles especially those from

Dr. Charles Sheviak along with some articles from academic thesis studies. References are below.

Taxonomy is the language of describing things. Giving names to objects (plants, animals, etc.) along with an understanding of the meaning of the name allows us to discuss and recognize what is being discussed without the object being present. Names are especially important in identifying endangered species. The history of the naming of *Cyripedium parviflorum* like all scientific studies involve hypotheses and theories which are developed and tested and accepted or discredited until other evidence is found for new theories to be tested. At one time some taxonomists argued that the plants with pouches were not orchids at all and proposed a separate family group for them called *Cyripediaceae*!

Is *Cyripedium parviflorum* a single varied species with its various morphology determined by its habitat, four separate species (made difficult by the scientific definition of a species) or a single species with four defined varieties? Looking at *Cyripedium parviflorum* from its first description and history of its name changes along with taxonomic naming requirements and adding to that the choice of plants named for description helps to explain issues with its identification.

Recognized throughout the world for over three hundred years as an extremely variable plant, the yellow lady's slipper has had various names over the same time period. When the exact name of a plant cannot be determined, discussion about the plant is difficult. Thus, an agreed upon name is vital. Because of the variation in *Cyripedium parviflorum*, people naming the plant have given it different names. The following is a short summary of how this has contributed to the naming and variation issues. I am not going to list all the names of people contributing to the naming problem. Philip Cribb **13** and Charles J. Sheviak **14** have more in-depth coverage.



*Cyripedium parviflorum* var. *pubescens*, Ohio

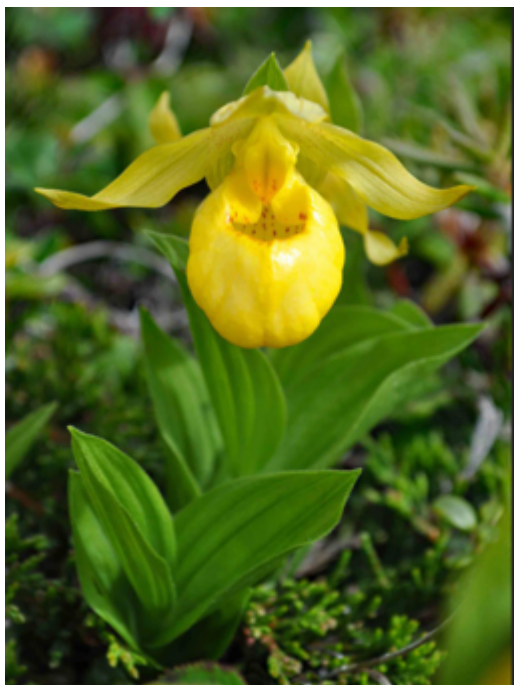
Accepted plant classification recognizes the person having first named a species recording his name after the species name so the dates listed for the name become important. *Cypripedium parviflorum* (Salisb.) refers to Richard Anthony Salisbury (1761 – 1829). He was a controversial British botanist who was first credited with the name *parviflorum* for a plant collected in Virginia. His description of the plant appears to describe the small yellow lady's slipper. Apparently, *Cypripedium calceolus* Linnaeus had been the historical name in Europe for the yellow lady's slipper Linnaeus considered var *pubescens* within it. Salisbury did not like the Linnaeus system of naming plants and is credited with the name of *Cypripedium parviflorum*.

In 1828, while many taxonomists considered the group to be two species *Cypripedium pubescens* and *Cypripedium parviflorum*, C. S Rafinesque felt that the large and small lady's slipper should be one species and named them one species *Cypripedium lutescens* (incorrectly claiming it the earliest name). He even recognized six varieties in this group!

Correll considered his second ecological entity found in Newfoundland more closely related to the European *Cypripedium calceolus* and some consider it a species *planipetalum*. Jim Fowler has phenomenal photos from Newfoundland showing the forma *planipetalum*. Thanks to Jim for permission to link to these plants to see why some think they might be a fifth variety. (Click the blue below for link)

[https://www.flickr.com/search/?user\\_id=22032600%40N04&sort=date-taken-desc&text=pubescens%20newfoundland&view\\_all=1&fbclid=IwAR1\\_dCGHRdeEswP9KFeUy8YL2G35WY5H60mhewY14UsWqhNnzPZUUVyZf08](https://www.flickr.com/search/?user_id=22032600%40N04&sort=date-taken-desc&text=pubescens%20newfoundland&view_all=1&fbclid=IwAR1_dCGHRdeEswP9KFeUy8YL2G35WY5H60mhewY14UsWqhNnzPZUUVyZf08)

Correll kept the name *Cypripedium calceolus* for North American yellow Lady's slipper when he made the four ecological entities listed above. The fourth ecological entity, the southern group he listed is now considered its own species *Cypripedium kentuckiense*. *Cypripedium kentuckiense* Reed is found in more acidic areas with sandstone as the underlying rock than *Cypripedium parviflorum* which has limestone as the underlying rock.



*Cypripedium parviflorum* var. *pubescens* Newfoundland, Canada, Photo by Susan J. Meades 14 (be sure to check website)



*Cypripedium kentuckiense* from Kentucky

In the 1970's and 1980's taxonomists were still arguing single species versus two species, the large and small lady's slippers or the single species *Cypripedium calceolus* arguing the number of varieties and which were species. The main arguments for a single species were: 1) the variation observed is due to hybridization among the various forms or, 2) as Carlyle A. Luer thought, a single species complex undergoing active speciation with three varieties: *pubescens*, *parviflorum* and *planipetalum*. In 1985 J. T. Atwood separated the North American group into four species based on flower differences: *Cypripedium pubescens*, *Cypripedium parviflorum*, *Cypripedium planipetalum*, and *Cypripedium kentuckiense*.

In 1995 Dr. Charles J. Sheviak separated the North American *Cypripedium* species from the European based on the differences in the morphology of the plants. Following naming conventions, the

new name was *Cypripedium parviflorum* Salisbury following the earliest use of the name by Salisbury. At this time the accepted names still separated the large varieties from the small, so he further separated the small into two groups delineating their differences and creating a key to tell the three apart. Finally, he named a new variety separating a group from Alaska. The fifth group of plants from Newfoundland he does not consider a variety so has the forma name *planipetalum*. He feels their appearance differences are caused by their environment as similar plants are found in New York and other areas with a similar environment. *Cypripedium kentuckiense* remains a separate species. So, for now, this is where it stands. An interesting side note, because of taxonomic naming conventions if *Cypripedium parviflorum* var. *pubescens* is named a species it will be *Cypripedium flavescens* because A. de Candolle in 1802 first called it a species with that name.

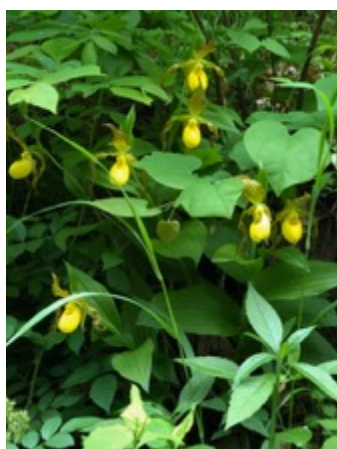
So, the question of identification can still be seen in the variety observed among the plants in the species. Some appear to be accurate examples of their named variety and others growing nearby show differences. While some of this variance may come from the growing environments of different plants, consideration must be given to the fact that pollinators do not pay attention to plant names as they go about their life. So, some of this variation may be breeding related. Ben Rostron has extensive examples in photos from plants found in Canada. The links will show this. I'm so envious of the people living where these plants grow in abundance

[https://www.flickr.com/photos/ab\\_orchid/albums/72157647414476446](https://www.flickr.com/photos/ab_orchid/albums/72157647414476446) -----

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*Cypripedium parviflorum* var. *pubescens*, Ohio Photo by Jan Yates



*C. parviflorum* var. *pubescens*, Ohio and not always found in a sunny environment.



*C. parviflorum* var. *pubescens*, Bruce Peninsula Photo by Jan Yates



*C. parviflorum* var. *pubescens*, Bruce Peninsula Photo by Jan Yates

It can be fun listening to taxonomists discuss (argue?) about lumping and splitting and the reasons for each labeling. Keeping all these sources in mind in this summary on the history of this species, I will bow to the conclusions of Kew (Phillip Cribb) and Dr. Charles J. Sheviak for determining them to be four varieties ... until such time DNA studies are done that change this. It will be interesting knowing how these studies determine which species/variety/hybrid they are testing when they pick specific plants and from how many different sites. Will they consider substrate, temperature and other environmental conditions, fungal specificity, morphological appearance, or descriptive nomenclature? (taxonomical historical custom) It will also be interesting to see how possible changes will be accepted after observing the uproar over the renaming of the orchids in the Cattleya Alliance and *Oncidiinae* groups.

So, in researching this species I discovered that nature does not read the books and it produces beauty and variety in amazing ways. It shows us the need to protect this beautiful complex along with our other native



orchid treasures. The species *Cypripedium parviflorum* is a fabulous representative of nature in all its glory and shows how much it can teach us if we just take time to explore.

## References and Endnotes

Because of the large amount of information available, I decided to include an extensive list of resources that can be checked in more detail. Endnote numbers are in front of sources are in bold.

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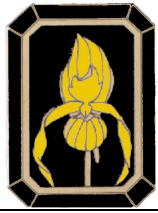
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