Spotlight on: Calopogons on the Prairie ... Steve Marak

On Memorial Day, Cathy and I met Art Evans and set off into Ozark National Forest to find not orchids but lilies. Art has wide interests and knowledge, and he's very expert on lilies as well as orchids. We hoped he could identify some lilies Cathy and I found years ago, but had never seen in bloom.

We didn't find the lilies, though we did get thoroughly rained on and have to hike up and down a very steep, rocky, and mud-slick road cut. But when we got back to the cars, Art suggested we go to Stump Prairie, near Siloam Springs, to see the Oklahoma grass-pink orchid, Calopogon oklahomensis. We were easily persuaded, and that was obviously the right decision, because the rain stopped, the clouds parted, and the sun peeked out.

Stump Prairie is an 18 acre remnant of undisturbed (never plowed or planted) tallgrass prairie. There are only about 600 acres of high quality tallgrass prairie left in Arkansas, with almost one-fifth of that in Benton County. There are a number of orchids and other rare plants that occur mostly and in some cases only on these prairies.

May is a great time to be on the prairies - many flowers, especially in years like this when we've had abundant rain, but the grasses aren't so high yet that it's hard to find things (or see where you're walking!). Only a few feet from the car, we found Platanthera lacera, known as the ragged fringed or green fringed orchid. The flowers aren't large - about 2 cm (3/4 in) tall - white to slightly green, with that typical Habenaria/Platanthera look, but there may be ten or more flowers open at once and they're very cute.

As with many prairie plants, they don't form large clumps but are sprinkled about. They seemed to especially like the slight slopes of the prairie mounds. Art counted forty visible from one spot, probably the densest concentration we saw, and there are surely hundreds of them across Stump Prairie.

The Calopogon oklahomensis aren't as common, but there were many of them as well, mostly pink but ranging from nearly white to almost purple. They also seemed to prefer the bottoms of the prairie mounds. The flowers are around 3.5 cm (1.5 in) tall, and elegantly shaped.
Calopogons on the Prairie contd........

According to the Flora of North America, there are five species of *Calopogon*, with two - *tuberosus* and *oklahomensis* - found in Arkansas. Various sources give various ways to tell them apart, and as usual some are better than others. (I think we should just all agree we’re not going to dig them up to look at the shape of the tuber, for instance.)

The most obvious usable difference is in the shape of the lip, and since *Calopogon* flowers are non-resupinate, the lip is uppermost where it's easy to see. In *C. oklahomensis*, the "bottom" of the lip - which is at the top of the flower - is triangular, coming to a point, or trapezoidal. Several keys I checked call the lip of *C. tuberosus* "anvil shaped", but I went out to the garage and looked at my grandfather's blacksmithing anvil, and I see no resemblance. A mushroom, maybe, or a railroad rail viewed end-on, though I've seen some pictures that look almost like Mickey Mouse ears.

Other differences, compiled from several sources: in *C. tuberosus*, there is often an orange area on the lip, between the end and the patch of bristles or hairs; the flower buds are not grooved, and the flowers open over a longer time and are more numerous; taller plant, well over 1 foot, prefers wetter areas such as fens or bogs. In *C. oklahomensis*, the area between the end of the lip and the bristles is usually pink, the flower buds are grooved, and the flowers open mostly at the same time, or at least over a shorter period of time; shorter plant, 6-10 inches, grows in dryer areas such as our prairies.

We visited the smaller Searles Prairie, in Rogers, the next day and found *C. oklahomensis* there too. Many people think of wild Arkansas orchids as something they have to drive for hours and trek for miles to see, and some, like the elusive *Cypripedium reginae*, are. But there are beauties like these grass pinks just a few minutes away and only a few steps from our cars.

Special NOTE from the Program Chair.

We are nearly out of all the potting materials from earlier this year. We only have coconut husks and aggregate rock remaining. If you would like to purchase either of these items, please email or call Sarah by Saturday evening. rswaddoups@yahoo.com 659-3420. And I apologize to anyone who wanted media but couldn't get it because we had already sold out. We'll be sure to do this again in 2010.
Twenty-eight members and guests were on-hand to witness Barbara Larkin’s powerpoint program on ‘Deflasking’. One new member joined the OSO ranks, Ms. Sara Fisher, 1456 Crestwood, Joplin, Mo. 64801. email sarafish@swbell.net. We wish Sara a long and rewarding experience with the hobby and OSO.

The Judging tables were ablaze with many Spring jewels. The Marak’s again did their magic with the camera’s for this page.
Looking Ahead—OSO Programs

June 28, 2009: Photographing Orchids or What are all those funny icons on my camera? For our June 28 meeting, we will learn more about photographing orchids. Local photographer David Hauser will teach us the basics of photography, including aperture and ISO settings, basic lighting and how to use the features on your camera to better capture your orchids. So, you can finally get out of automatic mode on your camera! After his presentation, we’ll do a photo shoot, so be sure to bring your cameras for some hands-on learning. No additional equipment is necessary, just bring whatever camera you currently use. We’ll use the plants on the judging tables as our “models” so be sure to bring your best blooming orchids!

As usual, the meeting will begin at 1:30 p.m. at NTI.

Looking Forward:

July 26, 2009: David Bird / Bird’s Botanicals: You asked for it! The “Cave Guy” is coming back for an encore presentation and of course more wonderful cave-grown plants to sell. David’s presentation will focus on orchid culture, so get ready to learn some great tips.

August 30, 2009: Orchids in the Wild: Field Trip to Olin & Steven’s

In August, our meeting will be held at Olin Karch and Steven Wilgus’s place in Deer, near the Buffalo River. Based upon the usual growing season, it is very possible that we will be able to see several species of orchids in bloom. For a sample, you can visit Olin’s website at www.olinsweb.com. Details will be forthcoming as we get closer, but note the date change and mark your calendars.

September 27, 2009: AUCTION! Get it on your calendars, you know you are going to want to come!

If you have an idea or program suggestion, please feel free to let me know. We’ll be doing another survey in September to gage interest for various programs, but please feel free to suggest something in the meantime.

SPECIAL RAFFLE at the Fall SWROGA in Little Rock.

The Arkansas Orchid Society is concerned about meeting expenses for the SWROGA show they are hosting in October. They have asked if SWROGA might be able to conduct another raffle for a set of White Orchid silver plate. Therefore the following set is being offered for raffle on October 3, 2009, in Little Rock, AR, at the SWROGA Semi-Annual Show and Sale. The tickets are $5.00 each or $25.00 for six and can be purchased from Carolyn McCabe, SWROGA Treasurer, orchids@mbo.net.

Tom & Barbara Larkin will also have tickets for sale, tslarkinjr@yahoo.com or ph. 479-925-2228.

The set includes 73 polished, ready to use, pieces in an anti-tarnish box:

- 1 sugar shell
- 8 knives
- 8 dinner forks
- 8 salad forks
- 8 dessert forks
- 8 soupspoons
- 24 teaspoons
- 1 large pierced serving spoon
- 1 small pierced serving spoon
- 2 large serving spoons
- 1 cold meat fork
- 1 gravy ladle
- 2 butter knives

Thanks so much,
Carolyn McCabe

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Sarah has been an active and enthusiastic member of OSO for a few years. Through firsthand knowledge as a fellow purchaser and show-goer, I can attest to her love of orchids and fascination with perfecting her growing methods. And, WOW!... What a wonderful spot to grow some great plants!
-Suzanne Hobbs

My introduction to orchids was seeing them growing wild in the Philippines. I lived there for a year and a half, and was fascinated by the fabulous plants that just grew on trees in people’s yards and in the jungle. In place I lived, there was a large tree that had several phalaenopsis species and oncidiums. Several years after I came home, I was looking for a cool plant for my office, and well, the rest is history.

Right now I have approximately 300 orchids plus another 100 seedlings. (I don’t count them as plants until they are big enough to get their own pot.) About a third of those are phals, a large number of angrecoid species and crosses, vandas, neofinetias, some cattleyas, phrags and other miscellaneous “oh that is pretty” thrown in. At the moment, I am most excited about a couple of first blooming phals—species and primary hybrids that just smell wonderful.

I grow my orchids in a 10x11 foot sunroom attached to my house. I keep the windows open and the fans running most of the time, but it is also hooked up to the heat and a/c of the house for the winter cold and really hot summer days. There is a drain in the floor, so I water with a hose. That is a great improvement after years of schlepping them all to the kitchen sink. I have rigged up shade cloth “curtains” which are adjustable, and in the summer I put shade cloth up over the phals. The larger plants receive natural light. I have rigged up some basic light fixtures on the bottom most shelves for the seedlings. This maximizes my usable space and helps the seedlings along. The sunroom is on the south side of my house, so it gets lots of sunlight. My favorite part of my grow space—other than the orchids themselves of course—is that it opens up to my kitchen by double glass doors. So even when I can’t be out there puttering with the orchids, I can enjoy them.
In the last couple of years, I have read a lot about fertilizers and fertilizer combinations. Last summer, I acquired several flasks at the same time and decided to do an experiment. I decided to test three different fertilizer combinations. All of the plants received a monthly flush of plain water and Pro-Tekt was added to the various fertilizer combinations.

**Group 1:** This group received Peters 20-20-20 and fulvic acid every watering with seaweed extract and Hygrozyme added twice per month. This fertilizing regime came from an article in the IPA magazine.

**Group 2:** Received MSU fertilizer at every watering with SuperThrive added twice per month. This group was a variation on the regime I had recently adopted.

**Group 3:** Received only DynaGrow 7-9-5 every feeding. This third group was my control because I was most familiar with the results from DynaGrow, having used it for several years until recently switching to MSU.

The fertilizer experiment began July 25, 2008 with 20 compots of newly deflasked phal seedlings. The compots were divided into the three groups, with at least one compot of each cross in each of the groups—otherwise the assignment was random. Each group had small and larger seedlings. I recorded the number of plants and measurements of each seedling for each compot at the start of the experiment. Just so that I could visually compare the growth, I photographed each compot. I kept a journal of the experiment and noted each time I fertilized, any significant weather changes, any pest treatments, etc. I tried to treat all of the compots identically, except for the fertilizers. The trays of compots were mixed so that some of each of the three groups were included in each tray—randomly placed again. All of the compots were grown under four foot fluorescent tubes for consistent light and were watered with their various fertilizers on the same days.

In April 2009, I photographed the compots again. By comparing the two, you can see the plant growth. In May 2009, I got around to dividing the compots. There was an obvious difference in the plant growth. Both the Peters/Fulvic/Hygrozyme/Seaweed and the MSU/SuperThrive compots had significantly more plant growth than the DynaGrow. The plant difference is fairly obvious in the pictures. When I pulled the plants out of the media, however, the root growth on the Peters/Fulvic/Hygrozyme/Seaweed compots were significantly better than either of the other two groups.

I have included a three-photograph before and after of three compot—one from each group. These photos show about nine months of growth from July 2008 through April 2009, and then show another couple of weeks growth once they really started growing again this spring. For reference, each pot is 4 inches in diameter.

**The Future of the Fertilizer Experiment:**

Because the results were so marked, it is tempting to use the Peters/Fulvic/Hygrozyme/Seaweed combination on all of the compots, but I would like to continue the experiment and see if perhaps another combination is even more successful. In particular, I am curious how the MSU fertilizer will work with the fulvic acid, hygrozyme and seaweed. I would also like to determine if the fulvic acid simply lowers the pH of my water, allowing for more nutrient absorption. After breaking up the compots, I am considering the following groups for further experiment:

- **Group 1:** Peters + Fulvic acid + Hygrozyme + Seaweed
- **Group 2:** Peters + Fulvic acid + Mag Pro
- **Group 3:** Peters + SuperThrive + Mag Pro
- **Group 4:** MSU + Fulvic acid + Hygrozyme + Seaweed
- **Group 5:** MSU + Fulvic acid + Hygrozyme + Seaweed
- **Group 6:** MSU + Fulvic Acid + Mag Pro
- **Group 7:** MSU + SuperThrive + Mag Pro

Perhaps those of you experienced growers or more scientifically minded could suggest an alternate or additional experiments. I would welcome your input. I will of course continue to track the plants. I have already measured each of the seedlings and will measure them again next spring to see which of the fertilizer combinations produces the best, healthiest growth.

I should add that if all of these fertilizer additives seem unnecessary or overwhelming to you, there is absolutely no requirement that you use any of them. Your plants will grow and bloom without anything more than a good balanced fertilizer of MSU alone. The purpose of my experiment is to determine what fertilizer will produce the maximum results for my phals, under my growing conditions. I have enjoyed seeing the various results and have learned a number of interesting things along the way. So while it is a bit of work to make my fertilizer potions, it has been a worthwhile endeavor.
TEST GROUP 1: Peters + Fulvic acid + Hygrozyme + Seaweed. This group received Peters 20-20-20 and fulvic acid every watering with seaweed extract and Hygrozyme added twice per month. This fertilizing regime came from an article in the IPA magazine.

Test Group 2: Received MSU fertilizer at every watering with SuperThrive added twice per month. This group was a variation on the regime I had recently adopted.

Test Group 3: Received only DynaGrow 7-9-5 every feeding. This third group was my control because I was most familiar with the results from DynaGrow, having used it for several years until recently switching to MSU.
A month has sure made a difference in the weather, now with this blistering heat. I do hope you and your orchids are keeping cool.

The program this month should be a real winner for all us shutter-bugs. Lots of opportunity to learn some techniques and to get more use out of our cameras.

Cheers, Bruce

What’s Ahead

June 28, 2009
NTI, 709 S. Old Missouri Rd., Springdale AR. 1:30
Program: David Hauser, Floral Photographer “Photography basics for photographing your Orchids.”

July 26, 2009
NTI, 709 S. Old Missouri Rd., Springdale AR. 1:30
Program: David Bird, ‘Bird’s Botanicals, Kansas City Mo.

About OSO...
The Orchid Society of the Ozarks came into existence with the Organizational Meeting of April 28, 1996, in which ten local orchid growers met with the purpose of forming the group. Since then, the Northwest Arkansas based Society’s membership has grown considerably and now consists of over 100 members.

The OSO meets on the 4th Sunday of each month. Annual dues are: $10.00 for an individual membership, $15.00 for a joint membership. For more information, please contact Membership Chairperson Suzanne Hobbs 479-236-0760 email shobbs@sellingnwa.com, or, visit our website at www.oso-web.org and click the “Join” link.

Spring Meeting is in Oklahoma City, OK on April 28 – May 2, 2010. These meetings are orchid conferences with a lot going on, tours and lectures as well as the show. If you come to a meeting please join us at the Affiliated Society Breakfast. The registration is not FREE but the hotels are discounted for the meetings and the hosting clubs go to a lot of effort to hold the costs down while having a great event.

So there are some FREE things in the orchid world along with a lot of FUN.

Carol Holdren, AOS Affiliated Society Committee Chair

Let’s talk about FREE!
If you are looking for orchid information - try the American Orchid Society web site at www.AOS.org Much of the web site, including the forum, is open to everyone. There is a “Member’s Only” section that has great information and we do want you to join the AOS and get our great magazine, Orchids, as well as access to that part of the web site, but if you aren’t ready for that right now don’t hesitate to visit the web site.

At the web site under “Orchid Information” there is a place to sign up for a FREE Beginner’s Newsletter. And there are also culture sheets. If you give an orchid as a gift it is nice to include a culture sheet with it. You can download those at no charge - FREE. Also your society can download them to give away at shows or at meetings.

The AOS web site lists upcoming shows which is great to check out when you are traveling. Wouldn’t you hate to go to a city and find out you could have gone to an orchid show – if you had only known it was on? The web site also has all of the AOS Affiliated Societies listed along with when they meet and their contact information. Our society recently had a guest who was from New Jersey and visiting their mother in Delray Beach, FL. She went to 3 different orchid societies while in the area and had a great time. If you are an orchid grower you have instant friends all over the world. FREE! Under “Shop” you will find the “Orchid Source Directory” which lists vendors according to area. Now that might cost you something!

One event in particular you might want to plan a trip around are the AOS Members Meetings. The AOS Fall Meeting will be held at the Huntington Botanical Garden outside Los Angeles, CA along with the Southland Orchid Show. The dates are October 15 – 19, 2009. The