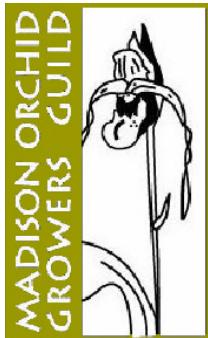


June
2011



The Orchid Grower

Orchid Growers' Guild of Madison
Website orchidguild.org

NEXT MEETING is ANNUAL PICNIC, June 12th

This year the Annual OGG picnic potluck will be hosted by Bob and Lucy Lasseter. The date is Sunday, June 12th. Arrive around 12:30 pm, especially if you have orchids for ribbon judging. We will dine around 1:30. Bring a dish to pass. They will have non-alcoholic drinks so bring your own beer or wine if you wish. They have a large yard with lovely plantings and there is no need to bring chairs.



DOOR COUNTY FIELD TRIP, June 5th

Please join us on our native orchid tour the first Sunday in June. Some of us are staying at Peninsula State Park while others may choose to be in a motel. This is our schedule for that day. We will meet at Ellison Bluff County Park at 10 AM. It is on Porcupine Road, off Highway 42 south of Ellison Bay.

If that time is too early for anyone, we will meet at the Harbor Fish Market, 8080 State Highway 57, in Bailey's Harbor at NOON to order lunch. (Phone at restaurant is 920-839-9999). After lunch, we will proceed to The Ridges Sanctuary. The Sanctuary is located at the corner of Hwy 57 & Cty Q just ½ mile north of Bailey's Harbor.

Rich Narf is arriving in Door County on June 1 to scout out what there

is to see this time of year. Please give **Rich Narf a call at 235-4450** to let him know if you are coming. He needs your cell phone number should there be a change of plans. If you signed up at the OGG meeting, you do not need to call him.

It should be great fun.

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As a warm-up to our June field trip, Richard and Nancy Baehnman of NEWOS gave a presentation on Native Wisconsin Orchids. Richard showed a series of photos he was taken over the years of native orchid species, many from Isle Royale. They have slogged through mud and battled mosquitoes to find these rare plants. They also salvage orchids, pollinate orchids and grow some in their backyard. Richard shared the following article and Nancy provided the blooming chart (see page 7)

GROWING YELLOW LADY SLIPPER ORCHIDS FROM SEED IN MY BACKYARD

By Richard Baehnman

The first thing that I would like to do is apologize to all of the scientists who would have wanted more details and a longer experiment. This is just a report by an old duffer puttingter in his yard.

I love native Wisconsin orchids and I love to share the orchid experience with others. One problem sharing orchids with others is their relative scarcity. Where do you grow orchids to share? I have tried flasking Yellow Lady Slipper orchids and, up until now, I have had limited success. Also moving orchids from flask to yard has not been easy for me, so I decided to try something different.

I know that orchid seeds need a certain fungus to grow. I also know that you can grow fungus on toilet paper. I saw this several years ago at a farmers market. A vendor was selling kits which grow edible mushrooms on toilet paper rolls. I tried sowing orchid seeds directly on toilet paper rolls which had been exposed to soil from my orchid beds; this did not work. There were way too many things growing on the paper for any orchids to survive.

I have observed a few orchid seedlings popping up in my orchid beds in the yard, but considering the number of seeds produced every year I have wondered if most of the seedlings that came up were destroyed by things like hail, hard rains, bugs, rabbits, squirrels and a host of other hazards which wipe them out before they get noticed.



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In November of 2008 I decided to try and grow seeds in the backyard after another year of flasking failures. I built a special bed for the seeds. I wanted to accomplish two things: first to provide a physically safe place for the seeds and seedlings and also to provide a suitable site for the needed fungus to grow. The bed was constructed from 1" by 8" treated lumber. The measurements are 18"x36". The treated lumber was probably not the best choice but it was an earth friendly lumber which should not leach harmful chemicals into the soil. I placed the wood frame in a shaded corner of my yard where it did receive the same southern exposure as my slipper orchids. The bed ran in a North to South direction. The ground was not level

(Continued on page 3)

(Continued from page 2)

so I did dig down about 2 inches and set the frame into the shallow hole. In the bottom of the frame I put a layer of heavy screen. The screen has square holes about 3/8" in size small enough to keep out most underground creatures. On top of the screen I placed a layer of heavy plastic which I ran about halfway up the two 36" sides

When I prepare my orchid beds I use soilless mix like Miracle Gro or Stein's.soiless mix. I do not use the mix with the moisture retaining ingredients. I like to mix sand into the mix about 10 to 20 percent. I filled the bed about 2/3rds full of the mix which I then pressed down so it would not settle too much. Next the toilet paper. I used the cheapest I could find, with no dyes, no scents, nothing but paper. I did not count the number of rolls used but 12 should be enough. I dipped the whole roll into a pail of water and placed it into the frame with the core parallel to the ground. I gently flattened each roll. I filled the whole frame placing the rolls side by side. There were a few small gaps not filled by the paper but I did not worry about them. Next I sowed the seed. My orchids normally have a large number of seed pods and I saved several pods and let the seed disperse into a large coffee filter. I sowed the seeds onto the toilet paper and then unrolled several layers of paper on top of the seeds. I did take about 1/2 cup of soil from my orchid beds and sprinkled it on top of the paper. Next I added about 1 1/2 in. of the soilless mix with sand, on top of the rolls. I gently pressed the soil down in the bed. The level of soil in the bed was about two inches below the top of the frame.

Next I made the top. I needed to keep out any creatures, weed seeds, insects, hail, hard rains, wind and blowing snow. The top was made of 1 1/2 in. by 1 1/2 in. lumber. The outside dimensions of the top frame match the outside dimensions of the bed. On the top frame I stapled a piece of plastic screen. It had square openings in it about 3/8" in size. I placed a double layer of burlap cloth on top of the bed. I stretched it tight and placed the top frame on it and screwed the top to the bottom bed with 2 1/2" dry wall screws. The plastic screen on the top frame was placed face down so it was sandwiched between the lower bed and top frame.

Nothing happened in the bed in 2009, but in the spring of 2010 I found 21 orchid seedlings in the bed, most of them on the south end of the bed.

Three seedlings were munched on by something so I built a wire cage around the bed complete with a top. I have sprinkled slug bait on the bed. I intend to screw the lid on in the fall after everything has gone dormant.

I am sure that there are more orchids in the bed which will probably come up next year. I had placed some orchid seeds in fungus traps, in the bed. When I examined them this year there were small proto corms in some of them. I am guessing that most of the seedlings came up on the south end of the bed because it received some sun. That end of the bed should have been warmer, it should have frozen last in the fall and it should have thawed first in the spring.



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I wish that I could have replicated this experiment before writing this report but it would take two years. I will be replicating the experiment again this year. If anyone else would like to try, I would appreciate the help.

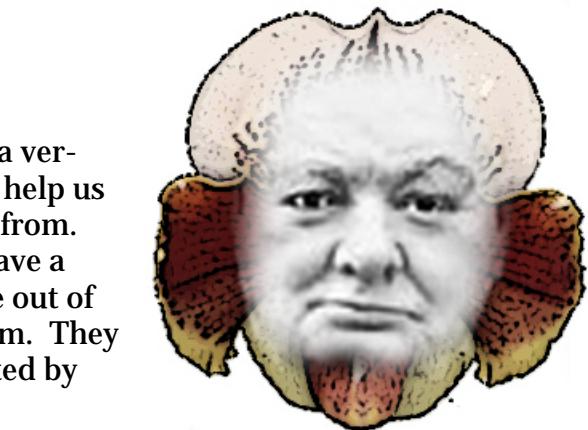
If you need more information or seed I should have both. Contact me at
Baehnmanr@new.rr.com or Richard Baehnman, 1522 W. Lorain Ct., Appleton, WI, 54914.

BULLDOG ORCHIDS

Synopsis of March Talk by Nile Dusdieker

Nile is an AOS student judge and his presentation was a version of his student judge presentation. His goal was to help us understand where bulldog-type *Paphiopedilums* came from. There is nothing like them in the wild. Their blooms have a beautiful round, flat shape, and look like they are made out of china. The blooms are long lasting but difficult to bloom. They cannot be mericloned, but must be divided or propagated by seed.

In 1740 orchid genera including *Cypripedium*, were first de-



The original British Bulldog, Sir Winston Churchill

Paphiopedilum Alliances

Paphs are divided into alliances. The main ones and their characteristics are as follows:

Subgenus *Paphiopedilum*

Section *Paphiopedilum* (insigne alliance)

Apple-green leaves, single flower, prominent dorsal sepal (*Paph. villosum*, *Paph. insigne*, *Paph. spicerianum*)

Section *Barbata* (maudiae-types) –

Leaves with striking markings (mottled leaf types). One or at most two flowers on tall stems *Paph. barbatum*, *Paph. callosum*)

Section *Cochlopetalum*

green or mottled leaves, sequentially blooming, petals spirally twisted (*Paph. primulinum*, *Paph. liemianum*)

Section *Coryopodium*

Large strap-shaped leaves, multifloral blooming, sepals striped, petals tapered (*Paph. stonei*, *Paph. rothschildianum*, *Paph. philippinense*)

Section *Pardalopetalum*

Green leaves, multifloral blooming, petals with expanded colorful tips (*Paph. lowii*, *Paph. haynaldianum*)

Subgenus *Parvisepalum*

Tessellated or mottled thin leaves, single or paired colorful, bulbous delicate flowers, (*Paph. delanatii*, *Paph. micranthuym*, *Paph. armeniacum*)

Subgenus *Brachypetalum*

Dwarf plants, mottled leaves, rounded flowers, wide petals (*Paph. bellatulum*, *Paph. niveum*, *Paph. concolor*)

Species within each alliance tend to breed easily with one another but not so easily between alliances. Sections *Paphiopedilum*, *Barbata* and *Brachypetalum* are the most important to standard complex hybridizing.

scribed by Linneaus. *Paphiopedilums* were separated from *Cypripedium* in the 1950s, and consist of about 80 species of tropical terrestrial and lithophytic orchids from Southeast Asia and surrounding islands. Only a few species became the foundation for the hybridization of bulldog-type orchids.

By the mid-1800s, several Paphs (*Paph. venustum*, *Paph. insigne*, *Paph. barbatum*, *Paph. villosum* and *Paph. spicerianum*) were in cultivation in Britain, particularly at Veitch & Son Nursery. A foreman there by the name of John Dominy created the first hybrid *Paphiopedilum* which was named *Paphiopedilum Harrisianum* (*villosum* x *barbatum*) in 1869. Subsequently, John Seden, who was trained by Dominy at Veitch, created many important early hybrids, his first being *Paphiopedilum sedenii* (now *Phragadenii*) in 1873 and a few years later *Paphiopedilum nitens* (*insigne* x *villosum*) in 1877. Seden had an important role in the development of standard complex hybrids in general, 150 Paph hybrids alone.

Paphiopedilum spicerianum bloomed for the first time in England around 1875 but only two of its immediate offspring proved to be significant: *Paph Leeannum* (*insigne* x *spicerianum*) registered in

Early primary Paph hybrids,
from Lindenia, Iconographie des
Orchidees, published monthly
(1885-1901)



Paph Harrisianum Superbum
(1887)



Paph Lathamianum (1901)



Paph Leeianum (1887)

(Continued from page 4)

1884 (15,000 progeny) and Paph Lathamianum (*spicerianum* x *villosum*) registered in 1888 (less with around 8000 progeny.)

Paph Leeianum was back crossed in 1895 with insigne to make Paph Actaeus which was then backcrossed to Paph Leeianum creating Paph Christopher 'Grand Duke Nicholas' which was renown for its large size bloom with 10,000 progeny.

By the turn of the century, Paph hybridization proliferated in Britain but was decimated during WWI although stud stock had been relocated to the United States. Hybrids previously exported to the US were being circulated. In 1922 Lewis Knudson (born in Milwaukee) proved that orchid seeds could be germinated without the presence of the mycorrhizal fungi but with sugars and starches (asymbiotic germination). Helen Adams, one of the most active *Paphiopedilum* breeders just after WWII, encouraged asymbiotic seed germination using Knudson's agar. Asymbiotic germination produced much larger numbers of seedlings, creating a bigger pool from which to select flowers with the desired characteristics. This breakthrough was a huge improvement over scattering seed around the base of the mother plant and revolutionized orchid hybridization. Hybridizing sped up and led to an explosion of breeding activity and lower prices for mass produced Paph hybrid seedlings until today complex Paphs can be purchased at big box stores for less than a bouquet of cut flowers.

As more breeders became involved in this era, flowers began getting larger and rounder and their substance was becoming heavier but problems arose: sterility of the most desirable stud plants, low germination rates, many deformities in offspring, and muddy coloration (leading to the terms muddy monsters, toads, dogs: terms not meant to be complimentary). Paph Winston Churchill (Eridge x Hampden)

COLORATION

RED — Three initial grexes formed the foundation for red complex hybrids: *Paph. Bingleyense* (*Harrisianum* x *charlesworthii*, 1899), *Paph Niobe* (*fairrianum* x *spicerianum*, 1889) and *Paph Cardinal Mercier* (1921)

SPOTS — major species contributing spots to complex hybrids were *Paph. insigne*, *Paph. villosum* var *boxallii* and *Paph. spicerianum*

GREEN AND YELLOW — Built on albinistic flower forms (lacking red anthocyanin pigment), traced to *Paph insigne* f. *sanderae* (1888).

FALL-TONE COLORS — Paph Hellas Westonbirt' (Desdemona x Tania, 1940) whose genealogy includes *Paph. insigne*, *Paph. spicerianum* and *Paph. villosum*)

WHITE — *Paph niveum* and alba form of *Paph insigne*, *Paph bellatulum*. [Paph. F. C. Puddle (Paph Actaeus x Paph Astarte, 1932) is a cornerstone of white complex hybrid breeding as an ancestor of nearly 1300 hybrids]

(Continued on page 6)

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Paph. insigne (1835)*



*Paph. spicerianum** (1880)



Paph. villosum var.
anname (1907)*



Paph. fairrianum (1857)*



Illustration ©Sue Wickison, www.suewickisondesign.com
Paph. bellatulum

Six species of Paph are of importance for hybridization: *Paph. insigne* (spotting on the dorsal sepal, albinistic forms produced green, yellow and white); *Paph. spicerianum* (wide dorsal sepal); *Paph. villosum* (excellent vigor, substance and red-brown colors); *Paph. bellatulum*, *Paph. fairrianum* and *Paph. charlesworthii*, but mostly the first four.



Paph. charlesworthii

(1951), one of the most important breeding grexes of all time because it could produce large flowers with wide petals. Winston Churchill, dubbed the “British Bulldog” by the Russians during WWII for his unyielding tenaciousness. Now the term bulldog refers to complex Paph hybrids of sturdy substance and size.

Great strides have been made in creating super large, rounded complex Paph hybrids. New trends include novelty and miniature hybrids. Novelty hybridization refers to crossing a standard complex back to a species or primary hybrid. Standard complex miniature hybrids (tea cups or pygmies) were initially discarded as runts.

For more information on bulldog Paphs, refer to Nile’s article “Goin to the Dogs” in the May 2011 issue of Orchids magazine.

* from Curtis’ Botanical Magazine, image courtesy Missouri Botanical Garden. <http://www.botanicus.org>

Judging Complex Paph Hybrids

(based on the AOS Handbook)

- **Form:** Round, broadly oval, particular emphasis upon fullness, balance and proportion. Dorsal sepal should be large, rounded, slightly concave and not reflexed. Groove in midline is part of genetics, less prominent is preferred. Petals should be broad and their length should be in proportion to the rest of the flower. Synsepal should afford a harmonious background for the pouch. The pouch should be full, in proportion and not protrude excessively forward. The entire flower must be symmetrical in the midline.
- **Coloration:** Clear and definite in well defined areas and patterns or harmonious suffused, according to breeding.
- **Presentation** Thickness and firmness of the flower tissue in complex paphs is generally heavy and now an expected feature. Texture should be waxy or varnished. Size is based on the overall spread of the flower, with emphasis on the width of the dorsal sepal. The stem should hold the flower above the foliage facing forward.

PAPH CULTURE

Nile recommended putting your Paphs outside in summer. They like an open mix: fine chip rock or perlite keeps it open. If your Paphs have "Happy Hairy Roots" then your media is the right moisture. Brown on the tips of the leaves is an indication of too much fertilizer. Some like extra calcium, others do not. When media breaks down it tends to become acidic and calcium mitigates this. Arnie Klehm says some Paphs like silica, and puts a tsp of sand on top when repotting. (Avoid white sand, it is chemically treated). River sand is good. When Paphs are somewhat potbound they seem to do better.

Arboretum trip to the Southern Unit of the Kettle Moraine State Forest on May 25th Wisconsin Department of Natural Resources

By Judy Stevenson

In the dead of winter, a trip to see wild flowers on a Wisconsin prairie sounded like a good idea so I signed up. I was bountifully rewarded which made the trip worthwhile in spite of intermittent showers and a cool day. Fortunately I had dressed appropriately. We started at the Forest headquarters of the Southern Unit, which had been located at that site since 1977. There is a small museum, a movie and DNR rangers with much information. We saw our first wildflowers on the Stony Ridge Nature Trail located behind the center. I was familiar with most of flowers but did see the endangered "Kitten Tail" wildflower which was new for me. Our trip to the Paint Brush Prairie was by far the highlight of the day. This is a virgin piece of land that has never been plowed or planted. It is a wet prairie which is burned most every spring. Here there were many more wildflowers which I had never seen before. For orchid lovers, there were oodles of gorgeous small white lady's slippers (*Cypripedium candidum*). In the WILD ORCHIDS flower guide by Paul Martin Brown he says that this orchid is globally threatened. Furthermore, he says that this orchid is the most imperiled of all lady's-slippers in North America. That day I saw MANY of these delicate orchids growing alone or in large clumps of almost 20 blossoms. They are the shortest in stature of the eastern lady's-slippers. The flower size was about $\frac{3}{4}$ " to 1" inch in size.

Next year we should plan a trip to this special place.



WISCONSIN ORCHIDS

APPROXIMATE BLOOMING TIME

MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCT
5 10 15 20 25 30 5 10 15 20 25 30 5 10 15 20 25 30 5 10 15 20 25 30 5	--Cypripedium candidum-- --Liparis liliifolia-- --Plat. clavellata-- --Corallorhiza odontorhiza--	--Galearis spectabilis-- --Platanthera hyperborea--	--Cypripedium calceolus var. pubescens--	G oblongifolia	--Sp. magnicamporum--
--Calypso bulbosa--	--Coeloglossum viride var. virescens--	--Listera convallarioides	--Platanthera lacera--	--Spiranthes casei--	Sp ovalis
--Cypripedium acaule--	--Cyp. arietinum	Cyp reginae	--Spiranthes romanzoffiana--	--Spiranthes cernua--	
--Cyp. parviflorum-	--Aplectrum hyemale--	--Plat. dilatata--		Triphora trianthophora	
--Aplectrum hyemale--	--Corallorhiza striata--	--Malaxis unifolia--			
--Listera cordata--	--Spiranthes lucida--	--Plat. leucophaea--			
--Platanthera hookeri--	--Platanthera hookeri--	--Platanthera psycodes--			
--Arethusa bulbosa--	--Epipactis helleborine--	--Spiranthes lacera--			
--Amerorchis rotundifolia	--Amerorchis rotundifolia	--Epipactis helleborine--	Goodyera pubescens		
--Liparis loeselii--	--Liparis loeselii--	--Epipactis helleborine--	--Goodyera repens--		
--Corallorhiza maculata--	--Platanthera obtusata--	--Platanthera obtusata--			
	Listera auriculata		Goodyera tesselata--		
	--Plat. flava var. herbiola--				
	--Malaxis monophyllos--				
	--Calopogon tuberosus--				
	--Platanthera orbiculata--				
	--Pogonia ophioglossoides--				

The blooming chart was compiled from several sources including Fred Case's book and the UW-Madison Botany website on Wisconsin orchids.

Nancy Baehnman

MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCT
5 10 15 20 25 30 5 10 15 20 25 30 5 10 15 20 25 30 5 10 15 20 25 30 5					

OGG RIBBON JUDGING MAY 2011

First Place

Jeff Baylis
Sue Reed
Gary Brendemuehl

Gary Lensmeyer
Sandy River & Eric Mosher
Lynn West
Gary Lensmeyer
Steven Thimling
Eric Mosher

Dendrobium aggregatum
Paph sanderianum
Paph mem Jim Coyle 'Platinum' (Castle Greyskull 'Acne' x S
Gratrix 'Shapely')
Paph 'St. Swithin' (*philippinense* x *rothschildianum*)
Slc Ken Dream 'Moonlight Lady'
Paph Melody (Charlotte Dillon x Perseus)
Phal bastianii
Phrag Grande 'Acker's Vista' (*caudatum* x *longifolium*)
Oncidioda Chaculatum 'Golden Pacific' (*charlesworthii* x *macul
atum*)

Second Place

Eric Mosher & Sandy River
Steven Thimling
Steven Thimling

Phal Balden's Kaleidoscope
Leptotes bicolor
Onc. pusillum

Third Place

Lorraine Snyder

Phalaenopsis Liodoro (Deventeriana x *violacea*)



Slc Ken Dream 'Moonlight Lady' (Persepolis x Beaufort) exhibited by Eric Mosher & Sandy River

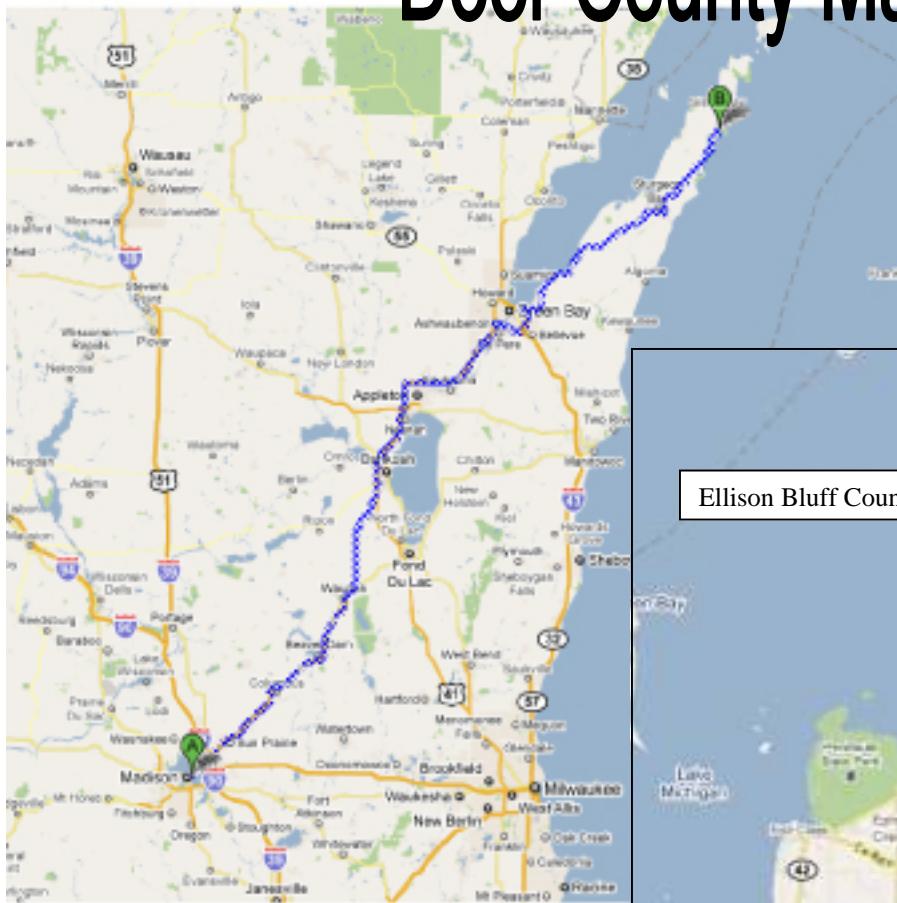


Oncidium pusillum exhibited by Steven Thimling. The species has been renamed *Psygmorchis pusilla*. It is found from Nicaragua south to northern South America and the southern Caribbean, on trees and shrubs in pastures and hot humid forests at elevations 500 to 950 meters, as a miniature-sized, hot to warm growing twig epiphyte.



Phal bastianii exhibited by Gary Lensmeyer. This miniature species was exported from the Philippines in the 1960's and thought to be a naturally occurring hybrid. Distinct species status was concluded after seedlings were raised and flowered, which showed little variation as would be expected for a hybrid. Gary purchased the plant last fall at Oakhill and repotted it in sphagnum. After it recovered he put it in an east window. Three weeks ago it began blooming.

Door County Maps



Driving time to the Ridges from Madison is approximately 4 hours. The driving time between the Ridges and Ellison Bluff County Park is about 25 minutes. Don't forget your sunscreen, insect repellent and sun hat.



Up-Coming Events

- **JULY 31** — Central Iowa Orchid Society Speakers' Day, Camp Dodge Recreation Center, 7105 NW 70 Ave., Johnston, IA
- **September 17-18** — Fall MAOC Meeting in conjunction with the Wisconsin Orchid Society Show, Mitchell Park Domes, 524 S. Layton Blvd., Milwaukee, WI; Radisson Hotel West Milwaukee WI
- **September 23-25** — Chicagoland Orchid Festival, Oakhill Gardens, 37W550 Binnie Road, Dundee, IL
- **October 8-9** — Illinois Orchid Society Fall Mini-Show, Glencoe, IL
- **November 14-23** — 20th World Orchid Conference, Singapore
- **September, 11-16, 2012** *Australian Orchid Conference 2012, Kings Park, Perth, Western Australia.
Contact: For Information visit website or aocconference@dodo.com.au.