GREAT LAKES CHAPTER

North American Rock Garden Society

SPRING NEWSLETTER, MARCH 2009

CALENDAR OF CHAPTER MEETINGS ** meeting details below**

****SATURDAY, March 28: SPRING MEETING**

MEETING:	**1:00 PM – ca. 3:30 PM**
PLACE:	**Matthaei Botanical Gardens**
BUSINESS MEETING	**1:00 PM**
PROGRAM:	**1:30 PM**
	Todd Boland:
	Spring Alpines of the Aragonian Pyrenees

This is a joint meeting with the Ann Arbor Garden Club; please come, gear up for spring, and make some new gardening friends!

**SATURDAY – SUNDAY, MAY 16-17: SPRING GALA **

See the enclosed flyer for this meeting where we are inviting members from adjacent NARGS Chapters to join us.

MARK YOUR CALENDARS:

****SATURDAY, Sept. 12: Fall Meeting and Plant Sale at Bev Walters'**

[Note that this is a **different date** from our usual 3rd Saturday in September]

Later this fall, we will have Pam Eveleigh here to speak as part of the NARGS Speaker's tour

DETAILS WILL BE IN THE FALL NEWSLETTER

UPCOMING NATIONAL MEETINGS – There will be no NARGS National Meeting during the growing season this year (the Annual meeting is the 2009 Western Winter Study Weekend) – hence our organization of the Spring Gala!

The details of the 2010 meetings will be finalized soon, but the annual meeting will be hosted by the Rocky Mountain Chapter in Denver. Start planning now!

The Eastern Winter Study weekend will be hosted by the New England Chapter and the Siskiyou Chapter with host the western Winter Study weekends. Watch the Quarterly for details...

From the President...

What a winter. Are you ready to see something green and growing? I am. Last few years we were able to do our fall clean up into December. This year it got so cold so quick I didn't even get all the hoses in before they froze. We have a Japanese maple that didn't even get a chance to show us its fall colors. The leaves froze green on the tree. The good side of this winter is we did have snow cover to protect our underground treasures. The bad side was the heating bill used up most of our gardening budget. Any plants we did lose will give us a chance to try something new or maybe room for more Hepaticas.

I am trying to do some group e-mails as another way to keep everyone informed of what's going on with the Great Lakes Chapter. It is important that we have your correct e-mail address. Please either check with Andrea Thompson aandjthompson@aol.com to see if your e-mail address is current, or send me a quick message at skeptic@twmi.rr.com or chapterchair@glcnargs.com and I will add you to our list and give it to Andrea. I did send the group an e-mail last Christmas. If you did not receive it it's because I didn't have your correct e-mail address.

This year we have some great speakers on tap. We started the year with Fred Case doing a talk on Building a Bog Garden. This was a great introduction to the world of Bog gardening. Thank You Fred. Fred was introduced by Jim Briggs, a long time Great Lakes Chapter member. Before introducing Fred, Jim told us a bit about how he got started in the world of alpine plants. Thank you Jim, for sharing a small bit of your gardening history with us. This was also our annual potluck. Thank you all for your tasty contributions. Especially Esther. It's always a treat to see Esther and Robert at our meetings coming from so far away, but who wasn't holding their breath waiting to see if she again brought some of her great bread and jam. We were also fascinated by the tissue cultured orchids both Fred and Esther brought to show.

Our March 28th Todd Boland is our speaker: 'The Spring Alpines of the Aragonian Pyrenees.' He notes "Besides alpines I will also show many orchids (my other Passion!)"

The May meeting, a Spring Gala, will be a very special one. Jacques Thompson and Tony Reznicek have spearheaded this one. This will be a multi-chapter meeting, with open gardens both Saturday and Sunday, our spring plant sale, as well as plants for sale from Arrowhead, Benedicts Nursery and Wrightman Alpines. We will be providing dinner for everyone at the University of Michigan Pierpont Commons, and as a special treat, Malcolm McGregor will be our speaker. Malcolm is a past editor of *The Rock Garden* (Journal of the Scottish Rock Garden Club) and author of "Saxifrages" and his book will be available for purchase. As dinner will be courtesy of the Chapter please let Tony Reznicek know if you are planning to come reznicek@umich.edu or (734) 996-0692. Please bring lots of plants to the sale to fund this!

This fall Pam Eveleigh will be here to speak. Besides being an avid hiker and photographer she is admitted to being addicted to Primulas. Her web site www.primulaworld.com has over 2500 images of Primulas.

Please remember to collect seed throughout the year from your garden or other travels for the NARGS Seed Exchange. Also we now have a way of storing seed from those early spring blooming ephemerals. If you get a chance to collect any of these, send them to me and I will get them into storage for the seed exchange under your name. If you remember also take some photos of these plants and some garden shots and send them along too.

Hope to see you at these great meetings and try to bring a friend along who may be interested in joining us.

John Serowicz

Oct. 4, 2008 – Crevice Garden Workshop
By Laura Serowicz

On October 4, 2008 a workshop was held on building a crevice garden at Tony and Susan Reznicek's new garden space which they acquired when they purchased the house next door. The back yard had been chock-full of buckthorn, bamboo and other weedy shrubbery, which had to be striped out before they could begin working on the garden. Tony had always wanted to do a large-scale crevice garden because a lot of alpines do very well in crevices. So he jumped at the opportunity of having a workshop on crevice gardening done in his backyard. Several volunteers helped Tony to prepare the site for his new crevice garden and helped him set the first several courses of rock up the hillside. Tony also had prepared several places where participants could try their hand at adding rocks to the crevice garden. So after Tony's talk members put on their gloves and took turns at picking out and laying stones; giving them a chance to ask questions about how to proceed and see the techniques used in securing the rocks in place.

This workshop also follows the recent release of The *Crevice Garden and its Plants*; an Alpine Garden Society Guide by noted Czech gardener Zdenek Zvolanek [**Copies of this book are available from the Chapter for $12 each. Contact John Serowicz.] A basic outline of the main points from the book was handed out at the meeting. One element where Tony diverged from what is recommended in the book was starting from the top; Tony suggests starting from the bottom. The idea of starting from the top is that it is easier to slide a rock down into place from the top, but no matter whether you start from the top or bottom you still have to lift the rocks to where they belong. Tony's reason for starting from the bottom is that you often want to latch the top of a rock onto the surface of another rock to keep it from slumping and to keep it steady.

Crevice gardens are best built with stratified rock. Natural outcrops common in areas of uplifted or folded mountains where the strata are never flat is the design inspiration. We're used to thinking of rock laying flat because most of Michigan is relatively flat, but in most mountainous areas of the world the mountains are actually folded and the strata run at all sorts of angles, including vertical. The crevice garden emulates what is really quite typical of what you find in the mountains.

The basic construction goal is to have it look natural, not necessarily symmetrical, but at least in balance with relatively straight vertical lines of rock of approximately the same width. Straight lines is, of course, all those uplifted and folded mountains which started out as flat bedded sedimentary rock but as they were tilted they still remained parallel to each other. It is unusual to get large amounts of contortions and twisting, although it happens. The horizontal strata are formed

before they are uplifted; they don't start out with variation in thickness or sinuous curves in the horizontal beds of strata. Tony ran a couple of parallel lines using heavy twine attached to stakes at the top and bottom of the crevice garden area and parallel to each other to make sure the spacing stays parallel.

In terms of the basic layout, keep in mind if your site allows you, to try to orient the lines east-west. Having the lines sited east-west helps maximize your microclimates, with the most different microclimates on the north and south facing sides of the same rock. One of the goals is to try to get as many microclimates as possible so that you can plant a species in six different places and hopefully it will live in one of them. Unfortunately, Tony wasn't able to orient the lines east-west with his crevice garden, because aligning it that way would have meant having it crooked on the hillside, and that would look unnatural. So you work with what you have. Also when planning your crevice garden even if you don't have an ideal site for it, don't worry – your alpines will benefit no matter the orientation.

Alpines like this method because it is it is very free draining – built mostly of rock and washed builder's sand (aka 2NS sand). The amount of water that can be held in this area is quite small and it doesn't stay soggy – yet a foot and an half down, at the bottom of the space between the rocks, not only is there moisture but when the plants root down they will actually find fairly fertile soil. So it offers the advantages of good drainage, inability to become waterlogged, and also gives a deep root run. It is a way of accomplishing what you often read in books the contradictory phrase "moist but well-drained". One thing we can't do here is what they often write in British gardening books, "sunny but cool" – forget that.

The beginning is the hardest part; once you get your basic layout and concept, then placing rocks is routine. One thing to consider when designing a large crevice garden is to ensure access to all areas of it so that you can reach in for planting, maintenance and admiration of the plants. Tony included a small semi-circular walk-in area at the bottom of the crevice garden where one can step in for a closer look; the scree at the base is also a natural sight in the wild. A set of smaller rocks about midway up offers a flat area to step on for access into the middle of the stonework. Several ridges and elevation changes provide more micro-sites, and if you've got all that rock why bother making it look like some piece of pavement. In shady micro-sites one can tuck something like hardy gesneriads and then on the brighter sites maybe some of the classic alpine plants like gentians.

Once you get the basic outline of how you want the crevice garden, you have to prep the shape the site. Dig out any place where there is a mound of your subsoil, because you want the sand to be underneath your rocks. On Tony's slope drainage will not be a problem and his subsoil is gravelly. He will also have an advantage with his hill slope as there is some constant water movement going through it, keeping the amount of supplemental watering to a minimum. In addition it is best to have the crevices as narrow as possible and not more than an inch otherwise you lose any benefit from being in a crevice. One thing he didn't put on the handout was a list of the tools you will need. A couple things are really handy; one is a narrow spade, because it is easier to work with in between your rocks; also a big wheelbarrow is helpful, but even more helpful is somebody bigger than you with a good strong back, to cart it around. The last thing is a good sturdy long pry bar (aka digging bar) to help nudge the rocks in place – make sure

Joan Bolt and Mark Derrick hard at work

you get a good tempered one because cheaper bars bend and are impossible to straighten out. Tempered pry bars cost more but are essential; they are available at Grainger's or specialty tool suppliers. In order to get crevices as narrow as possible it is sometimes useful to use a cold chisel and small sledge to break off any offending projection on the rock that prevents you from having a narrow crevice. Tony tries to keep its use to a minimum because it is dangerous, slow and fussy and you have to lift the rock out to work with it. Jacques Thompson also brought some long wooden wedges that are helpful for making planting holes in the crevices and for jamming the sand in between the rocks after they are in place to eliminate any large air pockets. If the sand is really dry you can pour it in nicely. One tool Tony needed that you probably won't, was a giant mattock to whack out buckthorn stumps.

Tony is probably not going to do any significant planting until spring because that will make sure that things are settled in well. As far as planting goes, try to work with small plants so that their roots fit into the crevices. Tony always washes the soil off the roots whenever he plants anything, because if you don't, you often end up with the plants not rooting out beyond the soil they are rooted in, especially if it is very different from surrounding soil. The confined root mass then dries out and dies. Once the roots are clean, set them into the planting hole with the roots fairly deep and spread out, then fill in around the plant with the sharp sand. After planting, crushed limestone is used for mulch. A few planting areas that need special attention in a crevice garden, include the steep front vertical crevices. Sempervivum (hens and chicks) hold the soil well and the rosettes divide up and proliferate quickly, really squeezing themselves tightly into the crevices.

Tony is doing his crevice garden on a slope but it could just as easily be done on a flat piece of ground. If your garden is flat, you do have advantages. Even on a flat site you can build a mound of sand and work from there. The crevice garden is scalable to any size, and can be as small as you want, and even in large troughs using different rocks. Also crevice gardens made with relatively small rocks are easy to handle. So anybody can do one at their site, even without heavy equipment or having to do any heavy duty work like. Tony

chose his rocks for scale with what he was going to do with the rest of the yard. The only thing he suggests for a natural look is to make sure the rocks you use vary in width between rows to give an additional dimension of texture.

When asked his source for the rocks he used, Tony said that he searched for the cheapest rocks possible. Getting the rocks to your site is the expensive part. His came from a quarry out of the Kalamazoo area, but basically you should hunt around for a local source. Stones are sized by dimensions that can be hard to figure out. He got a mix of what the quarry called 1-2 foot and 2-3 foot Michigan wall stone, which is just layered limestone. Tony didn't have a clue of how to figure out how much was needed because although it isn't too hard to estimate if you are looking at an area for laying it flat, but figuring it out when the pieces will be on edge was another puzzle. The rock he got was $124 a ton and he got about 7 tons; that cost not including the delivery charge or pallet. Getting it delivered on a pallet won't wreck your driveway and they can use a loader to put it where you want it.

Once the rocks were delivered Tony (with Jacques and Rimmer's help) started by sorting the stone from the pallets into piles roughly by size and thickness. This makes it a little easier to see what your pieces look like and try to figure out where they might be used. For example, he already decided that he was going to have some of the larger pieces at the bottom not only because it was easier than carrying them up to the top, but it also makes sense in terms of a visual impact. With smaller ones further up there is a sense of distance.

Then of course you dump a load of sharp sand to give you the bottom layer that the rocks will sit in. On his slope he should be just fine with crevices that will be 12-18" deep. The soil will slowly change over time. You won't be able to avoid leaf mold and other things raining down and worms bringing up subsoil (even if you install a barrier, worms will still be in there above the barrier). So there are going to be some limitations on how long that soil will stay coarse sand, but it should stay in good condition for a long time, because it will be free draining, even with an admixture of some organic material. Worms are wonderful for vegetable gardens, but they are not native to this part of the world, and all introduced from Europe, and our flora isn't used to it. There are also no worms native to alpine areas; so alpine plants don't know what worms are all about and it isn't something they have learned to live with. The first time you see one of your small alpines being hauled down a worm hole by a big night crawler you begin to see that worms are not a rock gardener's friend.

For acid-loving plants use sandstone and silica (sand-blasting) sand. Sandstone is more available in Michigan because we have a lot of deposits of layered sandstone and as an added benefit it is lighter than limestone when dry. Some stones are harder to work with like granite and fieldstones, but the Czechs have done some nice gardens even with them.

January 17, 2009 Meeting – Bog Gardens
By Laura Serowicz

On January 17, 2009 we enjoyed a potluck lunch and a talk by Fred Case on Bog Gardens. Fred was introduced by Jim Briggs who was asked to first tell us a little about how he had gotten into rock gardening and some things about Fred that we didn't know. Jim gave a very entertaining synopsis of how he got seduced by rock garden plants and some of the early nurseries and members who had a profound impact on his gardening life. He told us of his first meeting with Fred when he told Fred about a dwarf Trillium grandiflorum that Jim's father-in-law found in the woods. Fred was very excited when they took him to see the dwarf Trillium because it was not T. grandiflorum but T. nivale which he had been looking for in Michigan for years and which was believed to be extinct in Michigan. Jim also had many stories of encounters with wildlife while looking for plants in the wild with Fred. Aside from Fred's love of Trilliums, pitcher plants and native orchids; he also loves Gilbert & Sullivan, opera, teas, reciting poetry, and reading mysteries.

Fred started his talk describing several kinds of wetlands, and many of the plants that grow in them. The wetlands he concentrated most of his talk on are marl fens and sphagnum peat bogs. Fens are wetlands that have a mineral rich water supply slowly flowing through them; fens form where ground water comes in contact with lime rich deposits. The lime is deposited in fens as marl, which is limestone in the powdered form. It is so intensively calcareous that only a few specialized plants do well there such as butterworts – *Pinguicula*, sundews – *Drosera* and other things, and even a few orchids. As a marl fen ages, sedges and rushes fill in and it becomes a great place for white lady's slipper, *Cypripedium candidum*, and showy lady's slippers, *C. reginae*.

A more striking wetland is a big beautiful peat bog – a sphagnum moss bog. This kind of a bog often forms in a pothole lake and builds up when the plants do not completely decay because they sink down out of the oxygen zone to the bottom and form brown peat. Peat bogs are strongly acidic and mineral poor; the Canadian peat you buy for your garden originates in these bogs. There can be broad mossy edges and floating mats that if you jump up and down on them the trees on the far side quiver and shake. On the mats there are nice mossy areas where fringed orchids, *Platanthera* (formerly *Habenaria*) grow. You would at first think that these bog plants would be impossible to grow, it looks so different from any other habitat, but it turns out that if you do it right, it is the easiest kind to copy.

When Fred first tried to make a small bog he used a mixture of about 60% silica sand and about 40% pulverized Canadian peat. It works really well for about a year, and then it goes to pieces because it gets full of weed seeds. These are the right materials for a good acidic peat bog: Canadian peat – you do not want sedge (or "Michigan") peat and white silica sand-the silica sand maintains the acidity; you do not want cement or masonry sand because there is lime in it. When you mix the two materials together you get a gray mixture, it's got to show the sand, if it is too peaty it will get gummy too fast. For a small bog, you can buy a kids wading pool, try to find one that the color of the rim won't look too bad in your garden. Put it in the ground, fill it with the peat/sand mixture and plant it up – it won't look attractive, they really are too small and crowded, but you can grow the pitcher plants in it.

What you really want is a nice-looking bog with live sphagnum moss. There are many species of *Sphagnum* and they can be hard to identify. Fred brought some samples of sphagnum to show some of the different kinds; it can be green or red or purple and there are small ones and big nubbly ones. In Fred's garden he favors the big nubbly ones because they grow not only in bogs but also in low wet acid places and they are easier to maintain. Sphagnum moss has empty cells with

holes in them so they can absorb up to 200 times their own weight in water. It also allows oxygen through it so it's a wonderful growing medium. Sphagnum creates its own acidity, so once up it is good for several years at least.

Next, you have to build your bog in a place that looks natural and you have to think about what you are going to do and how you are going to make it look; you can't copy nature exactly but you can get enough of a feeling for some of these things. When you get out in some bogs, you will find a pond back in the bog, there may even be fish that go from one pond to another under the floating mat. That was what Fred tried to create, a pond lined with a sphagnum bog with pitcher plants and orchids in it. To have it look natural, consider that there is usually a prevailing wind from one direction, the wind tends to kick up waves on one side of the lake and be sheltered on the opposite shore, so the peat bog will grow more on one side than the other – off centered and concentric. When plant decay is slowed by the lack of oxygen and only rots so far and becomes peat, it is the area that has the newest soil and bare spots where seeds of orchids and delicate plants have no competition-and that's the type of area you want to create in the bog garden. There are certain things you do have to pay attention to when growing bog plants: proper pH – which for most of the plants in a sphagnum bog means acid; almost all bog plants do better in full sun; they also have temperature ranges to consider-for some it is summer heat rather than winter cold that kills the plant, and they need freedom from competition, especially for the seedlings. If you can match these things then you can do pretty well in your bog garden.

The physical construction of a bog involves a lot of work and strong backs. Once the hole is dug, to get the pond/bog absolutely level drive a stake in the middle and set it for the height you want, then put a string and a weight on it and go off in all directions and use a level to get the rim even all around. Fred used 1-11/2" Styrofoam supported by cut up rerod for the bog rim and then lined it all. He doesn't recommend using the plastic membrane/liners sold for ponds; they will deteriorate in about three years. Instead go to a roofing company and buy 45 mil rubber roofing, which first needs to be washed and rinsed well, especially if you are going to be putting fish in the pond or else you are going to kill them because of the residue on it. Just roll it out in the leveled hole and up over the edges then folded back down the back side of the bog rim, and then cover it with dirt so the liner doesn't show. Fred does not put big rocks all around the edge to hold and cover the liner because you don't find rocks in a bog. Then the bog shelf is filled with sand, exactly how much sand you put in depends on your conditions, and then layer the sphagnum on top.

The sand you use to fill in the lower part of your bog should not be masonry or cement sand (because of the lime). Around Saginaw there are sand ridges that were ancient shore lines with a yellow sand that works very well for the bottom layer. Don't make the pond too deep – 18 inches is deep enough for water lilies and don't make the bog so wide that you can't weed it-a long narrow bog shelf is better. If you cannot get sphagnum moss you can fill the bog shelf with the Canadian peat-silica sand mix but you will get a lot of weeds seeding in it. The water in the moss covered bog shelf is contiguous with the water in the pond so if the water level in the pond is down and you use city water you should refill it from the side opposite the bog so that the chlorine in the water has time to dissipate before it reaches the sphagnum since chlorine can kill the moss. If you have a small pond you may be able to use collected rainwater to fill the pond and bog; don't use well water that may have minerals in it.

Pitcher plants are usually the first plants that come to mind when you decide to build a bog garden. In order to really understand them, you really have to see them at many different points in their range (this goes for alpines too). If you look around here for the common pitcher plant, you are either going to go into a marl fen or a big peat bog. Up in Newfoundland, there are pitcher plants out on rocks next to a stream bed where it is wet and humid all the time. It depends on temperature, latitude, and soils where things will grow, so you have to pay attention to those things. The northern pitcher plant, *Sarracenia purpurea*, is evergreen and by fall they get nice colors and show up really well. There exists *S. purpurea* f. *heterophylla* which has a mutation in which there are no anthocyanins – the red pigmentation; it is called albino, but it is not truly albino. It has clear chartreuse yellow flowers and, by fall, golden yellow leaves in the sun. The showiest pitcher plant is *S. leucophylla*, native around Mobile, Alabama, but perfectly winter hardy here. All of the pitcher plants, (*Sarracenia*) are totally hardy if planted in the ground; the same plants in a pot above ground will die over winter. Part of the fun of growing these plants is that every once in a while you will find ones that differs from the normal forms in color, shape or size and as gardeners we are always wanting the unusual stuff, so keep an eye out for those variations.

Most bladderworts-*Utricularia*, have small yellow snapdragon-like flowers (a few have purple flowers); some species float free and have feathery leaves with vacuum-like traps and when micro critters swim by and touch the hairs they rupture and are sucked into the trap where they are digested. *U. cornuta* grows in wet peat and the traps are minute and not as important to the plant. Butterwort – *Pinguicula vulgaris*, also known as Tundra Violet, grows from about Mackinaw City northward, is also a carnivorous plant. The leaves turn up on the edges to form a little saucer, and the whole leaf is greasy and sticky with digestive juices that attract the bugs, which end up dead and digested on the leaf. The leaves produce micro-bulbils on the tips which fall off and form new plants faster than by seed, so eventually you get big masses. They prefer limey sand as they are calciphiles that grow in marl fens; a yellow butterwort from down south grows in the acid bog and has very few roots that serve to anchors the plants. In the fall the old leaves of the deciduous ones die and a bud forms in the middle, called a hibernaculum, and that can drift around and float to a new place in the bog.

Venus flytrap, *Dionaea muscipula*, is perfectly winter hardy here although found in the wild only within a 75 mile radius of Wilmington, North Carolina, and they often grow in sand. They are easy to grow and if you pull off a leaf with the bud at the base of the leaf you can start new ones just like with African violets. The little sundews, *Drosera spp*., get their name because in bright sun each hair produces a big drop of sticky dew. When a bug gets caught and covered with the dew the hairs pick the bug up and put it in the middle of the leaf and then the whole leaf curls up and digests it, then the leaf opens back up and the hairs move the bug carcass out to the edge. A sundew that likes growing in masses is *D. intermedia*; in a bog you will find it growing on the mat right at the water's edge. Down south there is a great big one, *D. filiformis v. tracyi*, that has leaves over a foot tall; this one does not have

the hairs that move the bugs around, it just catches and digests them where they land. It is not winter hardy but *D. filiformis v. filiformis* ranging north to Massachusetts and Nova Scotia is very hardy. When the sun lights it from behind it, it just glows.

Almost all of Fred's bog is sphagnum moss over the yellow sand, but at one end he is growing alkaline loving plants so he uses ground up oyster shells (he used to use limestone chips but they are slower to release the lime). In this area he grows several of the sundews and butterworts, pitcher plants can take either acid or alkaline-but you can't move them from one to the other so he uses lime-loving pitcher plants at that end, as well as fringed gentian, *Gentianopsis procera*, two species of bottled gentians including *Gentiana andrewsii*, and one of the very rare ladies' tresses orchid, *Spiranthes lucida*, which blooms in May. White lady's slipper, *C. candidum*, grows in marl fens and will grow in the limey area; it will also grow in ordinary dry garden soil, as long as it doesn't get too dry. *Primula mistassinica* was named after Lake Mistassini in northeast Quebec, it grows around the Straits of Mackinac but Fred has also found it in at least two fens in Oakland County. It is a small primrose that often grows under shrubby cinquefoil, *Potentilla fruticosa*; with tiny leaves with a white meal on them and bird's eye yellow-centered pink flower. They will last about 3 years and then die but they seed around so once you've planted them you don't have to do much; there will always be some in the limey end of the bog. It is our only native Michigan primrose.

Fred's favorite orchid of all the bog orchids is *Arethusa bulbosa*, the dragon's mouth orchid. He is now growing it from seed and trying to make it happy; it roots so loosely in the moss that it is easily torn out. There are two companion orchids that are almost always found with it-another real beauty found in both northern and southern bogs is grass pink-*Calopogon* which has 5 species; Fred only deals with the northern *C. tuberosus* which is the showiest with big pink flowers with an upside-down lip. When bees land on the fake pollen on the lip, there is a hinge that forces the bug down onto the true pollen and stigma where it then pollinates the plant and picks up pollen for the next flower. It is very easy to raise from seed. The other bog orchid is rose pogonia, *Pogonia ophioglossoides*, it spreads by root buds; you don't even have to raise it from seed. Its flowers range from pure white to dark purple and smells like red raspberries; you can smell it before you see it in bogs. And then there is the white fringed orchid, *Platanthera blephariglottis*, which grows all the way down to Texas and in the sand/peat bogs along the coast, but it also grows up to the Straits of Mackinac, but not into the UP. There can be patches of 100 of these in the sphagnum bog even though it is a rare plant. The orange fringed orchid, *P. ciliaris,* is found in bogs in this area but is very rare and should never be collected. It can be purchased from southern nurseries or is easy from seed and grows easily in the garden even though it may not be long-lived. The white fringed orchid flowers in early July (about the 10th) and the orange fringed starts in late July (about the 25th) and goes into August. And then the seeds ripen rapidly within a month of blooming. Pink lady's slippers, *Cypripedium acaule*, will grow in acid sites, from granite chips on a mountaintop to the soupiest peat bog; in sand, dry woods, wet woods and everything else as long as it is acid.

Fred does not recommend shrubs in the bog garden, unless you are very careful, because they will take over. In sphagnum bogs you will find islands with a few small trees, but if you follow the trunks of most of them back they are actually rooted lower branches of spruce that got swamped by rapidly growing moss. Shrubs are similar, you can't dig them because they go all over the place, so it is better to take cuttings or raise seedlings. The easy way to make cuttings or of these shrubs is to use a big pickle jar from a restaurant, preferably one which is transparent and then fill it half full of sphagnum moss, use a sharp razor blade to make your cutting, stick them in it, put the lid on and place the jar in bright open north light but not direct sun or you will cook it. Leave them for about six months and they will all be rooted. This works for bog rosemary-*Andromeda polifolia* and bog laurel-*Kalmia polifolia*, as well as other bog shrubs. *K. polifolia* is a beautiful bog plant which has bright pink blooms in May and gets about a foot tall; it will grow out into the water if it is at the edge of the bog. Fred showed many other plants for the bog garden. A very interesting plant is swamp pink, *Helonias bullata*, which grows in sphagnum bogs in the east. It is about 2 feet tall with narrow evergreen leaves-almost like a yucca but softer, with a tight cluster of pink flowers. The books say that *Pyxidanthera* is not growable-Fred has had his for at least 14 years (and Tony Reznicek has it too). It is in the same family as *Shortia*, *Diapensia* and *Galax*, and it looks just like moss and has little tiny white flowers in June. There are about 4 or 5 species of *Spiranthes* that bloom in the fall; they grow easily and will self sow. Prairie ladies' tresses, *S. magnicamporum*, really wants to be in a marl fen or wet prairie but most of the others will grow in a bog. Buckbean or bogbean, *Menyanthes trifoliata*, is very beautiful with its white flowers in the spring, but it does take over. It must be in the sun to bloom.

There are many natives for the pond or pond edge. *Nymphaea tetragona* is a wild water lily native to northern Canada, Alaska and Isle Royale; it does not make long runners but spreads from seed. It blooms in the afternoon where other water lilies bloom in the morning and it continues to bloom into November if we don't have a hard frost. Wild calla, *Calla palustris*, grows in peat bogs and ponds, and will take over a little but has beautiful textured leaves and nice small calla lily flowers. Golden club, *Orontium aquaticum*, is in the arum

Orontium aquaticum

Family; it is not entirely winter hardy unless you keep it totally under water. It has wonderful leaves and is also known as "Never-wet" because the leaves shed water.

Among the other natives that will grow in the pond are: *Lysimachia thyrsiflora*, with very attractive heads of yellow flowers, it does spread around but is easy to weed; arrowhead, *Sagittaria latifolia*, can even be found in ditches; floating buckwheat, *Polygonum amphibium*, is a very nice plant with floating leaves that are bright purple or pink on the back, and nice little pink buckwheat flowers most of the summer; pickerel weed, *Pontederia cordata*, is a great plant for the water or the edge of the bog; grass of Parnassus-*Parnassia glauca* which blooms from late July until frost. If you have a small pond, use sweet flag, *Acorus calamus* instead of cattails; you can tell by the spadix that it is in the aroid family.

Celebrating NARGS 75th Anniversary
By Bobby J. Ward

In 1934, North Americans were listening to Paul Whiteman and Duke Ellington on the radio and were watching Clark Cable and Claudette Colbert on the silver screen. In March of that year, 250 American garden enthusiasts gathered in the Commodore Hotel in New York City to formally launch the American Rock Garden Society. The organization grew to over 30 chapters by its 60th anniversary in 1994, the year it changed its name to the North American Rock Garden Society (NARGS) to recognize its large Canadian membership. Now with 35 chapters, the society celebrates its 75th anniversary in 2009.

My introduction to NARGS was in 1989 when I joined my local Piedmont Chapter, which was organizing its first Winter Study Weekend. I attended that meeting and made the acquaintance of long-time NARGS members, many becoming fast friends over the years. Expert speakers there sparked my abiding interest in bulbs and hellebores.

I soon discovered that there is much diversity in gardening styles and plant interests among the NARGS members across North America, reaching from Alaska through the Canadian provinces to all corners of the U.S. Regional differences in climate, rainfall, and temperature, push gardeners to adapt. Verna Pratt in Alaska does not garden the same way that Ev Whittemore does in North Carolina. Todd Boland in Newfoundland may not fully appreciate the gardening challenges that Marion Jarvie faces in Ontario. Larry Thomas's admirable eleventh-floor terrace garden in New York City is far different in space and concept from the rock gardens at the University of British Columbia in Vancouver or the Denver Botanic Gardens.

I learned that dryland steppe plants of the Colorado inter-mountain basin won't last a minute in the warm nights, high humidity, and the summer heat of Delaware or Maryland without amended soil or raised beds. But we seldom give up if we fail the first time, often relying on pass-along information from more experienced rock gardeners. With better understanding of a plant's requirements, such as drainage, soil type, the right amount of shade (and a bit of a green thumb), we usually can have success.

NARGS members freely interchange the terms "alpine plants" and "rock garden plants," and we don't always agree on what constitutes a rock garden or how to define it. Thus, we grow plants in small troughs, rock walls, raised beds, on large mounds (berms), in woodland settings, in alpine meadows, or among natural rock formations. For the neophyte or would-be rock gardener, placing native plants in scale among local rock is often the first, tentative beginning of "rock gardening fever."

North American rock gardeners can grow an extremely wide range of plants. Jane McGary, an Oregon bulb grower and editor of the NARGS publication, The Rock Garden Quarterly, notes that "Rock garden plants comprise both evergreen and herbaceous perennials and shrubs, and bulbous plants; a few annuals or biennials may be admitted, such as alpine poppies. In addition to flowering plants, rock gardens may include dwarf conifers, small ferns, and small-scale, non-spreading ornamental grasses."

There are many styles of rock gardening practiced by NARGS members. Pamela Harper, who gardens in coastal Virginia, has pointed out that the great woodland forests of North American have provided a backdrop for "a distinctive American style [of rock gardening] that has evolved naturally in regions of rocky woods rich in wildflowers." These include spring ephemerals, such as Trillium, Claytonia, and Erythronium. Tom Stuart of New York, says, "what North America has contributed more than methods is in the extension of plant materials." He notes the presence of cactus and mosses in NARGS members' rock gardens.

Our members often develop specialty gardens for their interests in a certain genus (perhaps Penstemon) or in bulbs (such as Crocus). Many rock gardeners grow plants from seed, planting dozens--even hundreds--of pots each year. Some foreign members join NARGS specifically to acquire seed from the annual seed list, which generally consists of about 4,000 selections.

Panayoti Kelaidis, of the Denver Botanic Gardens, has said that North American rock gardening is a vibrant, community of plant enthusiasts who share not only a complex and fascinating art, but also great bonds of friendship. "It fosters enthusiasm and excellence and honors biodiversity and human diversity: a tall order indeed!"

North Carolina gardener Elizabeth Lawrence wrote that "the cultivation of rock plants is the highest form of the art of gardening . . . Gardening is an art, and the rock garden is its purist form. All gardeners become rock gardeners if they garden long enough."

As NARGS heads towards its centenary, I look forward to its continual inspiration and support for its members in this most rewarding of pastimes.

[This article originally appeared in the Scottish Rock Garden Club's The Rock Garden 31 (122): 6-7 (January 2009), Bobby J. Ward lives in Raleigh, North Carolina and is currently Executive Secretary of NARGS.]

Please send address changes to our Treasurer, and include your up-to-date email:

Andrea Urda-Thompson
7760 Crane
Ypsilanti, Michigan 48197

(734) 434-7654
aandjthompson@aol.com

MEMBERSHIP INFORMATION:

Great Lakes Chapter:

Name:_____

Address:_____

_____

Phone: _____

email/FAX:_____

Send $10.00 per year (check payable to Chapter) to:
Andrea Urda-Thompson
Treasurer, Great Lakes Chapter, NARGS
7760 Crane
Ypsilanti, Michigan 48197

or pay in person at the next GLC meeting

National Organization:

Name:_____

Address:_____

_____

Phone:_____

email/FAX:_____

Send $30.00 dues (check payable to NARGS) to:
Bobby Ward
Executive Secretary
North American Rock Garden Society
P.O. Box 18604
Raleigh, NC 27619

We strongly encourage people to join both the Great Lakes Chapter and the National Organization.

GREAT LAKES CHAPTER
North American Rock Garden Society
Newsletter Editor, Tony Reznicek
890 Wickfield Court
Ann Arbor, Michigan 48105-1227

FIRST CLASS